THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

No. XII.—August, 1830. 26

COLLABORATORS.

JACOB BIGELOW, M. D. *Professor of Materia Medica in Harvard University, Boston.*

EDWARD H. BARTON, M. D. *of St. Francisville, Louisiana.*

WALTER CHANNING, M. D. *Professor of Midwifery and Legal Medicine in Harvard University, Boston.*

N. CHAPMAN, M. D. *Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania.*

JOHN REDMAN COXE, M. D. *Professor of Materia Medica and Pharmacy in the University of Pennsylvania.*

WILLIAM C. DANIELL, M. D. *of Savannah, Georgia.*

E. DE BUTTS, M. D. *Professor of Chemistry in the University of Maryland.*

WILLIAM P. DEWEES, M. D. *Adjunct Professor of Midwifery in the University of Pennsylvania.*

S. HENRY DICKSON, M. D. *Professor of the Institutes and Practice of Medicine in the Medical College of South Carolina.*

BENJAMIN W. DUDLEY, M. D. *Professor of Anatomy and Surgery in Transylvania University.*

GOUVERNEUR EMERSON, M. D. *of Philadelphia.*

THOMAS FEARN, M. D. *of Alabama.*

JOHN W. FRANCIS, M. D. *Professor of Obstetrics and Forensic Medicine in Rutgers Medical College, New York.*

E. GEDDINGS, M. D. *Lecturer on Anatomy and Surgery, Charleston, South Carolina.*

WILLIAM GIBSON, M. D. *Professor of Surgery in the University of Pennsylvania.*

R. E. GRIFFITH, M. D. *of Philadelphia.*

E. HALE, M. D. *of Boston.*

ROBERT HARE, M. D. *Professor of Chemistry in the University of Pennsylvania.*

ISAAC HAYS, M. D. *one of the Surgeons of the Pennsylvania Infirmary for diseases of the Eye and Ear.*

GEORGE HAYWARD, M. D. *of Boston.*

THOMAS HENDERSON, M. D. *Professor of the Theory and Practice of Medicine in the Columbian College, District of Columbia.*

WILLIAM E. HORNER, M. D. *Adjunct Professor of Anatomy in the University of Pennsylvania.*

DAVID HOSACK, M. D. *Professor of the Institutes and Practice of Medicine in Rutgers Medical College, New York.*

ANSEL W. IVES, M. D. *of New York.*

SAMUEL JACKSON, M. D. *Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania.*

SAMUEL JACKSON, M. D. *of Northumberland, Pennsylvania.*

W. J. MACNEVEN, M. D. *Professor of Therapeutics and Materia Medica in Rutgers Medical College, New York.*

C. B. MATTHEWS, M. D. *of Philadelphia.*

VALENTINE MOTT, M. D. *Professor of Surgery in Rutgers Medical College, New York.*

JAMES MOULTRIE, JR. M. D. *of Charleston, S. C.*

REUBEN D. MUSSEY, M. D. *Professor of Anatomy and Surgery in Dartmouth College, New Hampshire.*

JAMES M. PENDLETON, M. D. *Lecturer on Midwifery and Diseases of Women and Children, New York.*

PHILIP SYNG PHYSICK, M. D. *Professor of Anatomy in the University of Pennsylvania.*

NATHANIEL POTTER, M. D. *Professor of the Theory and Practice of Medicine in the University of Maryland*

THOMAS SEWALL, M. D. *Professor of Anatomy and Physiology in the Columbian College, District of Columbia.*

JOHN WARE, M. D. *of Boston.*

JOHN C. WARREN, M. D. *Professor of Anatomy and Surgery in Harvard University, Boston.*

J. WEBSTER, M. D. *Lecturer on Anatomy and Surgery, Philadelphia.*

N. W. WORTHINGTON, M. D. *Professor of Materia Medica in the Columbian College, District of Columbia.*

THOMAS H. WRIGHT, M. D. *Physician to the Baltimore Alms-House Infirmary.*

TO READERS AND CORRESPONDENTS.

Some interesting communications will be found under the head of American Intelligence. Nearly all the articles in this department are original.

The following publications have been received:—

Traité des Maladies des Voies Urinaires. Par CHOPART, Professeur, &c. Nouvelle édition, Revue, Corregée, Augmentée de Notes et d'un Mémoire sur les Pierres de la Vessie et sur la Lithotomie. Par M. E. H. FELIX PASCAL, D. M. P. &c. &c. 2 vols. 8vo. Paris, Germer Baillière, 1830.

La Manœuvre de tous les Accouchemens Contre Nature, Réduite a sa plus Grande Simplicité et précédée du Méchanisme de l'Accouchement Naturel. Par JULES HATIN, D. M. P. &c. Paris, Germer Baillière, 1827.

Circulation du Sang dans le Fœtus, Décrite et Dessignée, par J. ACHILLE COMTE, Interne des Hôpitaux Civils, &c. Paris, Germer Baillière, 1827.

Cours de Philosophie Positive. Par M. AUGUSTE COMTE, Ancien Eléve de l'Ecole Potucnique. 1 Livraison. Paris, Rouen Frères, 1830.

Mémoires sur l'Electro-Puncture, considérée comme Moyen Nouveau de Traiter Efficacement la Goutte, les Rheumatismes et les Affections Nerveuses, et sur l'Emploi du Moxa Japonia en France; suivis d'un Traité de l'Acupuncture et du Moxa, Principaux Moyens Curatifs ches les Peuples de la Chine, de la Corée, et du Japon; ornés de Figures Japonaises, par le Chevalier SARLANDIERE, D. M. Paris, Melle. Delauney, 1825.

Transactions of the Medical and Physical Society of Calcutta, Vols. I. and II. (From the Society.)

Traité des Plaies de Tête et de l'Encéphalite Principalement de celle qui leur est Consécutive: Ouvrage dans lequel sont Discutées Plusieurs Questions relative aux Fonctions du Système Nerveux en Général. Par J. P. GAMA, D. M. Chirurgien en Chef Premier Professeur a l'Hôpital Militaire d'Instruction du Val-de-Grace a Paris. Sédillot, Paris, 1830.

Traité Général d'Anatomie Comparée. Par J. F. MECKEL. Traduit de l'Allemand et Augmenté de Notes. Par MM. RIESTER et ALPH. SANSON, Docteurs en Chirurgie de la Faculté de Paris, Tom. VI. Rouen Frères.

Mémoires Composés au sujet d'une Correspondance Météorologie, ayant pour but de Parvenir a Prédire le temps beaucoup a l'Avance sur un point donné de la Terre. Par P. E. MORIN, Ancien Eléve de l'Ecole Polytecnique. &c. Memoire 1, 2, 3, 4. Paris, 1827–9.

Traité Elémentaire d'Anatomie contenant les Préparations l'Anatomie Descriptive et les Principales Régions du Corps Humain. Par A. BRIERRE DE BOISMONT, D. M. P. &c. Avec des Notes Extraites du Cours de PH. FRED. BLANDIN, Professor Particulier d'Anatomie et de Medecine Operatoire, &c. Paris, Mme. Auger Méquinon, 1827.

Observations on the Endermic Application of Medicines. By WILLIAM W. GERHARD, M. D. (From the author.)

Journal der Chirurgie und Augen-Heilkunde, herausgegeben von C. F. v. Graefe und Ph. v. Walther. (In exchange.)

Litterarische Annalen der gesammten Heilkunde, September, October, November, December, 1829, and January, February, March, 1830. (In exchange.)

Archives Générales de Médecine; Journal publiée par une Société de Médecins. January, February, March, April, 1830. (In exchange.)

Bulletin des Sciences Médicales, rédigé par M. Defermon. January, February, 1830. (In exchange.)

Révue Médicale, Français et Etrangère, Journal de Clinique de l'Hôtel-Dieu, de la Charité, et des Grands Hôpitaux de Paris; et Nouvelle Bibliothèque Médicale. February, March, 1830. (In exchange.)

Annales de la Médecine Physiologique. February, March, 1830. (In exchange.)

Journal Général de Médecine, de Chirurgie, et de Pharmacie Françaises et Etrangeres. March, April, May, 1830. (In exchange.)

La Clinique, annales de Médecine Universelle, Vol. II. Nos. 23 to 39 inclusive. (In exchange.)

Journal de Chimie Médicale, de Pharmacie et de Toxicologie. January, February, March, April, May, 1830. (In exchange.)

Journal Universel des Sciences Médicales. February, March, 1830. (In exchange.)

Mémorial des Hôpitaux du Midi, et de la Clinique de Montpelier. Par le Prof. Delpech. February, March, 1830. (In exchange.)

The Medico-Chirurgical Review and Journal of Practical Medicine, for April, 1830. (In exchange.)

The London Medical Gazette, for March, April, and May, 1830. (In exchange.)

The Edinburgh Medical and Surgical Journal, for April, 1830. (In exchange.)

The London Medical and Physical Journal, for March and April. (In exchange.)

London Medical and Surgical Journal, for March and April, 1830. (In exchange.)

The North American Medical and Surgical Journal, July, 1830. (In exchange.)

The New York Medical and Physical Journal, for January, 1830. (In exchange.)

The Baltimore Monthly Journal of Medicine and Surgery, Vol. I. Nos. 1, 2, 3, 4. (In exchange.)

The Boston Medical and Surgical Journal, Vol. III. Nos. 12 to 22 inclusive. (In exchange.)

The Western Journal of the Medical and Physical Sciences, April, 1830. (In exchange.)

The Maryland Medical Recorder, for January, April, and July, 1830. (In exchange.)

For the gratification of our contributors we continue the references to the works, in which they will find notices to their communications; these references

are, of course, restricted to the Journals received during the preceding three months.

Professor CHAPMAN will find his paper on Hæmorrhage noticed in Froriep's Notizen, for August, 1829.

Professor MOTT's case of Aneurism of the Innominata is noticed in the London Medical Gazette, for April; in the Archives Générales, for April; Baltimore Monthly Journal of Medicine and Surgery, for February, 1830; Maryland Medical Recorder, No. 3; and his case of Extirpation of an Osteo-sarcomatous Clavicle in the Bulletin des Sciences Medicales, for September, 1822.

Professor DEWEES will find his paper on Secale Cornutum noticed in the Transactions of the Medico-Chirurgical Society of Edinburgh, Vol. III. Pt. II.

Professor MUSSEY will find his case of Aneurism by Anastomosis noticed in the Archives Générales, for April; in the London Medical Gazette, for April; in the Baltimore Monthly Journal, for February; and in the Baltimore Medical Recorder, No. 3; and his Experiments upon the Colouring of Fœtal Bones with Madder, noticed in the Révue Médicale, for February, and the Archives Générales for March.

Professor DICKSON's Observations on the Effects of Heat are noticed in Froriep's Notizen for July, 1829.

Professor SEWALL's remarks on the Use of Turpentine in Hernia, are copied in the London Medical and Physical Journal, for March, and in the Maryland Medical Recorder, No. 2.

Professor JACKSON's observations on Absorption are noticed in the Baltimore Monthly Journal, for February; his remarks on the Pulse are noticed in the Boston Medical and Surgical Journal for June, and his case of Croup in the Maryland Medical Recorder, No. 2.

Professor HORNER's cases of Cholera Infantum are noticed in Froriep's Notizen, for June, 1829.

Dr. WRIGHT's observations on the Use of the Warm Bath in Delirium Tremens are noticed in the Boston Medical and Surgical Journal, for May, and in the North American Medical and Surgical Journal, for July; his Hospital Reports are noticed in the Baltimore Monthly Journal, for February.

Dr. SIMONS's remarks on the Use of Pyroligneous Acid are noticed in the London Medical Gazette, for May; in the New York Medical and Physical Journal, for January; in the Baltimore Monthly Journal, for February; in the North American Medical and Surgical Journal, for July; and in the Maryland Medical Recorder, for July, 1830.

Dr. HENDERSON's case of Disease of the Bones is copied in the Archives Générales, for March, 1830.

Dr. LEHMAN's paper on Otitis is noticed into the London Medical and Physical Journal, for April.

Dr. JACKSON's case of Supposed Poisoning is analyzed in the North American Medical and Surgical Journal, for July.

Dr. HEUSTIS's case of Gun-shot Wound is republished in the Maryand Medical Recorder, No. 2.

Dr. HAYWARD's case of Paruria Inops is copied in the Maryland Medical Recorder, No. 2.

Dr. GILLIAN's case of Excision of the Cervix Uteri, is noticed in the Baltimore Monthly Journal, for February.

Dr. BYRNE's paper on the Use of Tartar Emetic Ointment is noticed in the Baltimore Monthly Journal, for February.

Dr. FAHNESTOCK's case of Concealed Phthisis is noticed in the Baltimore Monthly Journal, for February; his observations on the Use of Rhus Glabrum are copied in the Révue Médicale, for February; and his paper on the Use of Datura Stramonium is copied in the London Medical and Physical Journal, for April.

Dr. RANDOLPH's case of Osteo-Sarcoma of the Lower Jaw is copied in the London Medical Gazette, for April, 1830.

Dr. WELLS's case of Elephantiasis of the Scrotum is noticed in Titley's work on Diseases of the Male Genitals.

Dr. GAYLORD's case of Intus-susception is noticed in the London Medical Gazette, for May, 1830.

Dr. HALL's case of Wound of the Rectum and Bladder is noticed in the London Medical and Physical Journal, for April.

Dr. TALIAFERRO's case of Paralysis cured by Moxas, is copied in the Boston Medical and Surgical Journal, for July, 1830.

Dr. FAUST's Essay on Malaria is noticed in the Boston Medical and Surgical Journal, for May, 1830.

Dr. LEVERT's Experiments on the Use of Metallic Ligatures are noticed in the Révue Médicale, for February, 1830, and in the Bulletin des Sciences Médicales, for September, 1829.

Dr. GUILD's case of Epilepsy is noticed in the Medico-Chirurgical Review, for April, 1830.

Dr. PEIRCE's case of Perforation of the Stomach is republished in the London Medical and Physical Journal, for March, 1830.

Dr. PENNOCK's Experiments on Cupping-Glasses in Poisoned Wounds are noticed in the Annales des Sciences d'Observation, for April, 1829.

Dr. RODRIGUES' Experiments on Ligatures in Poisoned Wounds are noticed in the Annales des Sciences d'Observation, for April, 1829.

We are compelled, by want of room, to postpone other references until our next number.

Authors of new medical books, desirous of having them reviewed or noticed in this Journal at the earliest opportunity, are invited to transmit to the *Editor* a copy as soon after publication as convenient, when they will receive prompt attention. Under ordinary circumstances, very considerable delay is caused by the circuitous routes through which they are received.

Papers intended for publication, should be sent, *free of expense*, as early after the appearance of the Journal as possible, in order to be in time for the ensuing number. Such communications should be addressed to "CAREY & LEA, Philadelphia, for the Editor of the American Journal of the Medical Sciences." All letters on the *business* of the Journal to be addressed exclusively to the publishers.

CONTENTS.

ORIGINAL COMMUNICATIONS.

ESSAYS.

ART. PAGE.

I. Case of Fungus Hæmatodes. By Thomas Sewall, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia. [With a plate] - - - - - - - - - - - 301

II. On the Use of the Warm Bath in Season Fever, commonly called "Bilious," "Bilious Typhus," &c. &c. By Thomas H. Wright, M. D. Physician to the Baltimore Alms-house Infirmary . - - - - 303

III. Case of Elephantiasis of the Scrotum successfully extirpated. By W. H. Ruan, M. D. of St. Croix. (Communicated in a letter to John Ruan, M. D. of Philadelphia) - - - - - - - - - - - 311

IV. On Rhubarb in Hæmorrhoids. By Samuel Jackson, M. D. of Northumberland - - - - - - - - - - - - - - 315

V. Observations on Mania a Potu. By Jesse Carter, M. D. one of the Resident Physicians of the Philadelphia Alms-house Infirmary - 321

VI. Account of a Case of Trismatic Tetanus, produced by the Passage of large, rough, and angular pieces of Clay from the Intestinal Canal into the Vagina, and cured by Tobacco Injections. By Burleigh Smart, M. D. of Kennebunk, Maine. Read before the Medical Society of Maine, at its Semi-annual Meeting at Portland, in January, 1825 - - 337

VII. Observations on the Medical Topography of Callao, with an Account of Disease of the Liver, as it appeared on board of the United States' Frigate Brandywine, during a Cruise in the Pacific Ocean, in the years 1826-7-8-9. By W. S. W. Ruschenberger, M. D. of Philadelphia, Assistant Surgeon U. S. N. - - - - - - - - - - 342

VIII. Extirpation of a Cancerous Eye. By Harvey Lindsly, M. D. of Washington, D. C. - - - - - - - - - - - - - 349

IX. Case of Rupture of the Uterus, successfully treated. By William S. Hendrie, M. D. of Hilltown, Penn. - - - - - - - - 351

X. Meteorological Observations, made in the City of Philadelphia, latitude 39° 57′, and on the Island of Tinicum, eleven miles south-west from Philadelphia, latitude 39° 48′, for the year 1827. By George F. Lehman, M. D. Lazaretto Physician of the Port of Philadelphia. (Continued from No. XI. page 138) - - - - - - - - - - 353

XI. On the Pathological or Abnormal State of the Circulation. By Samuel Jackson, M. D. Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania 364

XII. Remarks on the Climate and Diseases of Batavia, and on the Means of guarding against them. By George S. Bettner, M. D. of North Carolina 380

PAGE.

XIII. Case of Perforation of the Stomach by Ulceration. By Dr. Levi Rawson, of Grafton, Mass. - - - - - - - - - - 391

REVIEWS.

XIV. Memoir on the Treatment of Venereal Diseases without Mercury, employed at the Military Hospital of the Val-de-Grace. Translated from the French of H. M. J. Desruelles, M. D. &c. &c. To which are added, Observations on the Treatment of the Venereal Disease without Mercury. By G. J. Guthrie, Esq. Deputy Inspector of Hospitals, Lecturer on Surgery, &c. And Various Documents showing the results of this Mode of Treatment in Great Britain, France, Germany, and America. Philadelphia, Carey & Lea, 1830, pp. 217, 8vo.

Observations on the Pathology of Venereal Affections. By Benjamin Travers, F. R. S. and Senior Surgeon to St. Thomas's Hospital. London, 1830, pp. 75, 8vo. - - - - - - - - - - - - 394

XV. Mémoire sur l'Emploi de l'Iode dans les Maladies Scrofuleuses, lu à l'Académie Royale des Sciences, dans la seance du 22 Juin, 1829. Par J. G. A. Lugol, Médecin de l'Hopital Saint-Louis; Précédé du Rapport fait à l'Académie. Par MM. Serres, Magendie et Dumeril, Paris, 1829, pp. 78, 8vo.

Mémoire sur l'Emploi des Iodurés dans les Maladies Scrofuleuses; suivi d'un Tableau pour servir a l'Administration des Bains Iodurés selon les ages. Par J. G. A. Lugol, Médecin de l'Hopital Saint-Louis. Paris, 1830. pp. 52, 8vo. - - - - - - - - - - - - 408

XVI. Les Médecins Français Contemporains. Par J. L. H. P***. Paris, 1827, pp. 112, 8vo. - - - - - - - - - - - 418

XVII. Lehrbuch der Gynäkologie, oder systematische Darstellung der Lehren von Erkenntniss und Behandlung Eigenthümlicher Gesunder und Krankhafter Zustände, Sowohl der nicht Schwangern, Schwangern und Gebärenden Frauen, als der Wöchnerinnen und Neugebornen Kinder. Zur Grundlage Akademischer Vorlesungen, und zum Gebrauche für Praktische Aerzte, Wundärzte und Geburtshelfer, Ausgearbeitet. Von Carl. Gustav. Carus, Dr. der Philosophie, Medicin und Chirurgie, &c. &c. Zweiter Theil, pp. 608. Leipzig, 1828.

Compendium of Gynæcology, &c. By C. G. Carus, Doctor of Philosophy, Medicine and Surgery, &c. Part second. Leipzig, 1828. - - 429

BIBLIOGRAPHICAL NOTICES.

XVIII. Die Krankheiten des Gehoerorganes. Ein Handbuch zum Gebrauche seiner Vorlesungen. Von Karl Joseph Beck, der Arzneiwissenschaft Doctor, Ordentlichen Professor an der hohen Schule in Freiburg, und mehrerer Gelehrten Gesellschaften Mitgleide. Heidelberg und Leipzig, 1827.

Manual of Diseases of the Ear, &c. By Karl Jos. Beck, Doctor of Surgery, &c. 1827 - - - - - - - - - - - 459

XIX. Traité des Maladies des Voies Urinaires. Par Chopart, Professeur aux Ecoles de Chirurgie, Chirurgien en Chef de l'Hospice du Collège de Chirurgie de Paris, etc. Nouvelle édition, revue, corrigée, augmentée

PAGE.

de notes et d'un Mémoire sur les Pierres de la vessie et sur la Lithotomie; Par M. E. H. Felix-Pascal, Docteur en Medecin de la Faculté de Paris, etc. Vols. 2. Oct. pp. 948. Paris, 1830 - - - - - 461

XX. Handbuch der Anatomie des Menschlichen Körpers mit Abbildungen. Von Martin Münz, Doct. der Medizin und Chirurgie, bey der ausübendem Arzte, öffentlichem ordentlichen Professor der Anatomie und Physiologie an der Ludwigs-Maximilians-Universität zu Landshut, &c. Erster Theil, Muskellehre, Landshut, 1821. Zweyter Theil, Gefässlehre, 1821. Dritter Theil, Eingeweid-lehre, 1827 - - - - 463

XXI. Institutionum Medicinæ Practicæ, quas auditoribus suis prælegebat. Jo. Bapt. Burserius, de Kanifeld, Recudi curavit, Just. Frid. Car. Hecker, Medicinæ, Utriusque Doctor, et Professor P. E. in Univers. Litter. Berolinensi, plurium Societatum Medicarum, et Litterar. Socialis. Vol. 4. Lipsiæ, 1826.

The Institutes of the Practice of Medicine, of Jo. Bapt. Burserius. Edited by Professor Hecker, of Berlin, &c. 4 vols. Leipsic, 1826 - - 468

XXII. Medico-Chirurgical Transactions. Published by the Medical and Chirurgical Society of London. Vol. XV. Pt. II. London, 1830, pp. 187, 8vo. Plates 4 - - - - - - - - - - - - 469

XXIII. Handbuch der Entbindungskunst. Von Dr. Friedrich Benjamin Osiander, Wieland Königl. Grossbrit. Hanov. Hofrath, und Professor der Medicin und Entbindungskunst, Director des K. Entbindungs Hospitals, Mitglied der K. Societät der Wissenschaften zu Göttingen, &c. Erster band. Zweite Vermehrte Auflage. Bearbeitet von Dr. Johann Friedrich Osiander, Prof. der Medicin zu Göttingen, &c. mit dem Portrait des Verfassers. Tübengen, 1829.

Manual of Midwifery. By Fred. Benj. Osiander, M. D. Second improved edition, edited by John F. Osiander, M. D. Professor of Medicine at Gottingen, &c. - - - - - - - - - - - - 475

XXIV. A Treatise on Deformities; exhibiting a Concise view of the Nature and Treatment of the principal distortions and contractions of the limbs, joints, and spine. Illustrated with plates and wood cuts. By Lionel J. Beale, Surgeon. London, 1830, pp. 248. Pl. 4 - - - - - 476

XXV. Mémoires sur l'Electro-Puncture, considérée comme moyen Nouveau de Traiter efficacement la Goutte, les Rheumatismes, et les Affections Nerveuses, et sur l'emploi du Moxa Japonia en France; Suivis d'un Traité de l'Acupuncture et du Moxa, principaux Moyens Curatifs chez les peuples de la Chine, de la Corée et du Japon; Ornés de figures Japonaises. Par Le Chevalier Sarlandiere, Docteur en Médecine, Membre de Plusieurs Académies et Sociétés Savantes. Oct. pp. 150. Pl. 2. A Paris, 1825 - - - - - - - - - - 477

XXVI. Traité Elémentaire d'Anatomie, contenant les Preparations, l'Anatomie Descriptive et les Principales régions du corps humain. Par A. Brierre de Boismont, D. M. P. &c. &c. Avec des notes Extraites du cours de Ph. Fred. Blandin. Professor particulier d'Anatomie et de Médecine opératoire, &c. &c. Paris, 1827, pp. 800, 8vo. - - 479

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

Anatomy.

1. Singular Case of Malformed Heart. By Edward Blackmore, M. D. - - - - - Page 480
2. Anomalies in the Distribution of some of the Veins. By Meckel 482
3. Case of United Twins - 483
4. Malformation of the Heart. By Professor Dugés - - *ib.*

Physiology.

5. Experiments upon the Colouring of Different Tissues. By M. Casimir Broussais - - 483
6. Very Remarkable Case of Twins. By Dr. Meza - 484
7. Researches on Pulmonary Absorption and Exhalation. By M. Collard de Martigny - 485
8. Experimental Researches on the Gaseous Exhalation from the Skin. By M. Collard de Martigny - - - - - 485
9. On Vaccine Virus. By Dr. Robert - - - - - - *ib.*
10. Small-pox occurring twice in the same Individual. By Dr. Oppert - - - - - *ib.*

Pathology.

11. On the Morbid Anatomy of Fever. By Alexander J. Hannay, M. D. - - - - 485
12. Hernia of the Stomach, with Enormous Enlargement of that Organ. By M. Yvan - - 492
13. On Crepitating Rattle. By M. Guesne - - - - - *ib.*
14. Poisoning by Cantharides in Powder, followed by the Expulsion of the Mucous Membrane of the Œsophagus. By M. Rouquairol - - - - - 493
15. Meningitis and Abscess in the Left Corpus Striatum - 493
16. Case of Otitis, with discharge, terminating in the formation of Abscesses within the Head 494
17. Case of Uterine Phlebitis, with Inflammation of the Substance of the Uterus, and Pus in the Absorbents. By Cæsar Hawkins, Esq. - - - 495
18. Phlegmasia Dolens in a Male. By A. Copland Hutchison - *ib.*
19. On Dengue. By Dr. Mellis *ib.*

Materia Medica.

20. On the Morbid Phenomena caused by the Use of Iodine. By Dr. Jahn - - - 496
21. New Mode of Preparing Medicines with Sugar. By M. Beral 497
22. Formulæ for Preparations of Sarsaparilla. By M. Beral - *ib.*
23. On Balsam of Copaiba. By M. Gerber - - - - - 499
24. On Gum Ammoniac. By M. Szowits - - - 499
25. On the Taste of Sulphate of Quinine. By Schweinsberg *ib.*
26. On Phosphate of Quinine. By Dr. Harless - - - *ib.*
27. On Mudár. By Bamboo Ram Comel - - - - - 500

Practice of Medicine.

28. On the Use of Iodine in Morbid Growths. By B. Brodie, Esq. - - - - - - 500
29. Nitre as a Remedy for Scurvy. By Mr. Charles Cameron - 501
30. Case of Ileus cured by Crude Mercury. By Dr. Ebers - 502
31. Treatment of Extensive Burns. By Dr. Dorfmuller 503
32. Frontal Neuralgia cured with

PAGE.

Extract of Belladonna. By M. Claret - - - - - 503
33. Case of Paralysis of the Face. By M. H. Montault - - *ib.*
34. Ascites cured by the External Application of Digitalis. By M. Raisin - - - - - *ib.*
35. On Head-ache. By M. Ricord 503
36. Ergot of Rye as a Febrifuge. By Dr. Mehlhausen - - *ib.*
37. Clinical Reports of the Effects of Venesection in the Cold stage of Intermittent Fever. By Mr. Twining - - - - 504

OPHTHALMOLOGY.

38. On the Treatment of certain Injuries of the Eyes. By Samuel Barton - - - - - 504
39. On Amaurosis. By M. Dupuytren - - - - - 506
40. Evacuation of the Humours of the Eye by a Wound, with Restoration of Sight. By Baron Larrey - - - - - *ib.*
41. On the Use of the Essential Oil of Lemons in some of the Diseases of the Eyes. By M. Werlitz - - - - - 507
42. On the Employment of Ice in the Ophthalmia of New-born Children. By M. Rust - *ib.*

SURGERY.

43. Case of Tetanus caused by a Foreign body imbedded in the Ulnar Nerve. By M. Dupuytren - - - - - - 508
44. Opinion of the Comparative Advantages of Union by the First and Second Intention after Amputation. By M. Dupuytren - - - - - - *ib.*
45. Excision of the Neck of the Uterus. By M. Richard - 509
46. Case of Injury of both Hemispheres of the Brain. By Henry Maunsell, Esq. - - - - *ib.*
47. Treatment of Hernia Humoralis. By M. Dupuytren - 510
48. Sequel of "A Case of Carotid Aneurism, where the Artery was taken up above the Tumour." By Alexander Montgomery - - - - - 511
49. Excision of the Elbow-Joint. By Mr. Syme - - - - *ib.*
50. Excision of the Knee-Joint. By Mr. Syme - - - - 512
51. Excision of the Upper Jaw. By John Lizars, Esq. - 513
52. Tapping in Hydrocephalus. By Dr. Conquest - - 514
53. Amputation of the Arm at the Shoulder Joint. By Baron Larrey - - - - - - 515
54. Real Bronchocele. By Baron Larrey - - - - - 516
55. Extirpation of a Scirrhous Tumour. By Baron Larrey - *ib.*
56. Tracheotomy. By Baron Dupuytren - - - - - 517
57. Case in which a Foreign Body remained ten years in the Bronchia before causing death. By M. Dupuytren - - - 518
58. Case of Polypus Tumour obstructing the Glottis and causing Death. By M. Dupuytren *ib.*
59. Case of Recovery from a Wound in the Stomach inflicted by a Pistol Ball. By P. Breton, Esq. - - - - - *ib.*
60. Inveterate Herpes cured by Extirpation. By Dr. Eberl 519
61. Disease of the Maxillary Sinus. By John Couper, M. D. *ib.*
62. Laceration of the Kidney. By John Couper, M. D. - - 520

MIDWIFERY.

63. Cæsarean Operation on a Patient dead from Hæmoptysis. By M. Hugueir - - - 521
64. Detachment of the Placenta by the Injection of Acidulated Water into the Umbilical Cord. By Dr. Chiesa - - - 521
65. Retroflection of the Uterus. By J. M. Baynham, Esq. - *ib.*

Medical Jurisprudence.

66. Case of Poisoning with Arsenic. By Robert Christison, M. D. - - - - - 523
67. Case of Poisoning by Arsenic. By Hugh Wood, M. D. - 524

Chemistry.

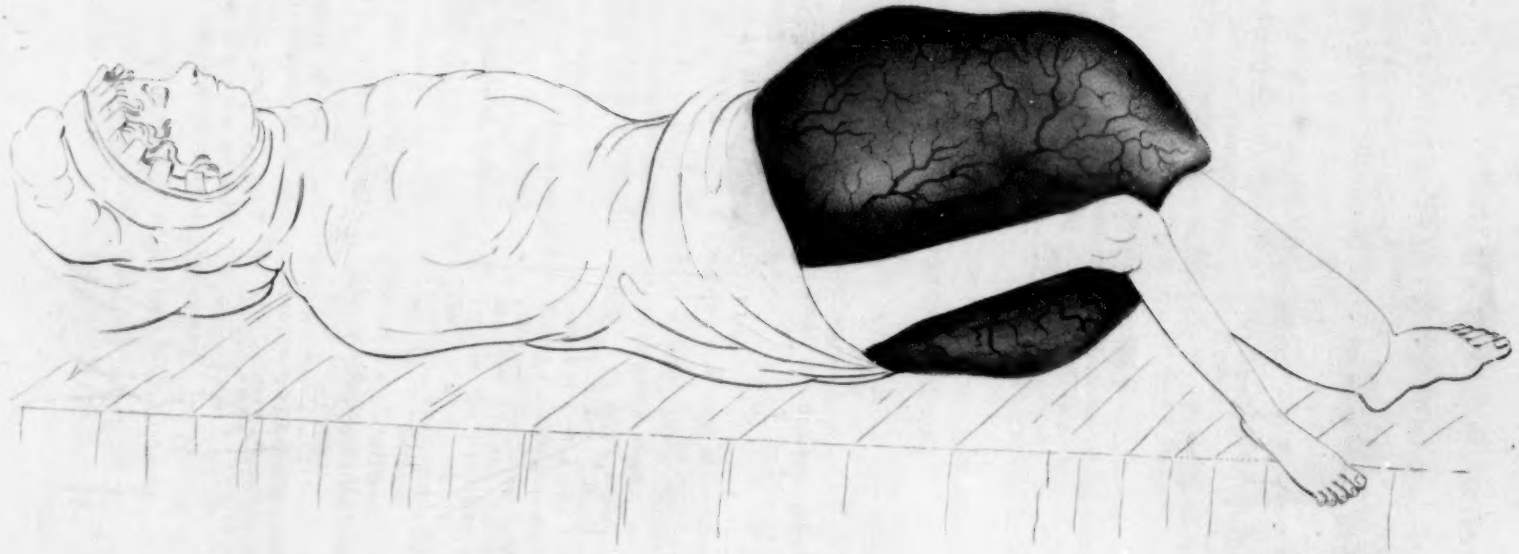
68. On the Influence of Electricity on Animal Putrefaction. By Charles Matteucci - 525
69. Analysis of Copaiba. By M. Gerber - - - - 526
70. On the Purity of Balsam Copaiba. By M. Gerber - *ib.*

Miscellaneous.

71. Obstetrical Statistics of the Kingdom of Würtemberg. By Dr. Riecke - - - 526
72. Statistics of the Netherlands. By M. Quetelet - - 528
73. Vaccination - - - 530
74. On Plague. By Dr. Madden 531

AMERICAN INTELLIGENCE.

Second Report of Professor Mott's Case of Aneurism, treated by Tying the Artery Ultra Tumorem - - - - - - 532
Extract from the Report of a Committee upon the Subject of Osteo-Sarcoma of the Lower Jaw, to a Medical Society of New York, April 1st, 1830. By David L. Rogers, M. D. Chairman 533
Case of Uterine Hæmorrhage, resulting from an Attachment of the Placenta over the Os Uteri, in a Second Pregnancy. By W. C. Roberts, Student of Medicine 534
Compound Tincture of Benzoin as a Remedy for Scalds and Burns. By William M. Fahnestock, M. D. - - - - 538
Case of Bloody Infiltration into the Labia Pudendi. By William S. Hendrie, M. D. of Hilltown, Penn. (Communicated in a letter to Dr. Dewees) *ib.*
Cases of Fracture of the Liver. By John O. Green, M. D. of Lowell, Mass. - - - 539
Case of Poisoning with Corrosive Sublimate, in which the Administration of Charcoal afforded great relief. By William P. Hort, M. D. of Bladen county, North Carolina - - - 540
Case of Scrofula successfully treated with Iodine. By Charles Lee Payne, M. D. of Lexington, N. C. - - - - - 541
Case of Disease of the Heart, with Rupture of the Right Auricle. By Philander H. Thomas, M. D. of Hancock, Mass. - - 542
Arsenic in Large Doses. By R. Dakin, M. D. of Columbus, N. J. 543
Account of a Man who Lived on Water for Fifty-four days. By James M'Naughton, M. D. Professor of Anatomy and Physiology in the University of the State of New York - - *ib.*
Endermic Medication. By Dr. William W. Gerhard - 544
Perturbating Treatment. - *ib.*
Case of Imperforate Hymen. By Dr. J. W. Horton - - 545
Prize Essay - - - - *ib.*
Return of Deaths within the City of Charleston, from the 1st of January, 1829, to the 1st of January, 1830 - - - 546
Index - - - - - 549



Sewall's
Case of Fungus Haematodes —

THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

ART. I. *Case of Fungus Hæmatodes.* By THOMAS SEWALL, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia.

THE following case of fungus hæmatodes, occurred in the practice of Dr. M'WILLIAMS of this city, the same gentleman whose name I have introduced in a former communication published in this Journal. By the courtesy of Dr. M'Williams, I had an opportunity of examining the case and marking its progress during the life of the patient, and was afterwards requested by him to make the post mortem examination, and draw up an account of its history.

The subject of the case was a Miss W—— of this city, about twelve years old, healthy, active, and intelligent.

In November, 1828, while in the enjoyment of her usual health, she was attacked with slight pain and lameness in the left thigh. On examination a hard tumour, the size of a walnut, was discovered on the inside of that thigh, situated one-third of the distance from the hip to the knee-joint. This was deep-seated and extremely obscure, being under the thickest part of the fascia lata, but by strong pressure it was found to be moveable and disconnected with the bone. From the time of the first examination of the case, the tumour continued to increase rapidly in size, and was attended with an almost constant, heavy, obtuse pain, which was also extended to the knee and ankle-joints, accompanied with an uneasy sensation in the whole extremity, producing a frequent desire to extend the limb and to change its position. The pain was always more severe and constant in cloudy and damp weather; but at other times would occasionally remit for six or eight hours together. At the end of six months, the

tumour had acquired such a size as to disfigure the limb and to prevent the patient standing or walking, and the pain was more severe, and accompanied with a sensation of great heat or burning.

During the last eight months, all the symptoms became aggravated. The tumour increased with greater rapidity than before—its surface became irregular, and exhibited a glossy appearance, interspersed with livid patches and superficial vessels greatly enlarged, and when handled presented in different parts, very unequal degrees of firmness, at some points appearing soft and yielding, as if suppuration had taken place; at others, imparting to the touch a sensation of almost cartilaginous hardness.

Ten days before her death, a rupture of the tumour took place, accompanied by a copious discharge of acrid fœtid sanies, and continued without at all impeding its growth.

She died on the 22d of January, 1830, fourteen months from the commencement of the disease.

It should be remarked, that during the continuance of the disease, till within two days of its termination, the appetite was good; large quantities of nutritious food were taken and digested without difficulty; but as the parents justly observed, all the aliment she received seemed to be expended in the development of the disease, rather than in the nourishment of the body.

The treatment of the case consisted principally in topical applications; but these had not the slightest influence in arresting the progress of the disease, or alleviating the sufferings of the patient.

The morning after the death of the patient, the following examination was made.

The body was found in a state of great emaciation. The leg and foot of the diseased limb were œdematous and considerably swoln. The tumour, as to form, size, and colour, is accurately delineated in the accompanying drawing, Pl. I. It involved the whole thigh, and extended down over the knee-joint, measuring in length fifteen inches, in diameter twelve inches, and in circumference three feet. By a horizontal section about one-third of the tumour was removed, by which its internal structure was clearly brought to view. On careful examination it was found that every tissue which entered into the structure of the thigh, had undergone an entire change in organization, and had assumed all the characters of the morbid growth, except the fascia lata, and this was greatly thickened. On the anterior part of the thigh a large cavity was found, containing about twenty-four ounces of fluid resembling olive oil, its walls thick and cartilaginous, with osseous depositions. On the posterior part of the thigh, corresponding

with the cavity just described, was a hard tumour, several inches in diameter, apparently composed of condensed cellular substance, with cartilaginous structure and osseous matter. This, together with the cavity already mentioned, constituted about one-fourth of the tumour. The remaining three-fourths, resembled in colour and consistence, the medullary substance of the brain, irregularly intermingled with cortical matter.

This mass was intersected by numerous membranous septa, formed probably originally of cellular substance. There were also numerous sinuses running in different directions, containing viscid sanies, and their walls formed of a dark-coloured membrane, apparently the inter-muscular fascia, much thickened.

The shaft of the bone was also extensively diseased. It was enlarged, spongy, and flattened, and had many small spiculæ projecting from it. It was fractured about four inches from the head, which I was informed happened after death, in attempting to move the limb. The extremities of the bone were sound, and the structure of the hip and knee-joints not in the slightest degree changed by the disease, although the tumour enveloped both.

Washington, D. C. May, 1830.

Art. II. *On the Use of the Warm Bath in Season Fever, commonly called "Bilious," "Bilious Typhus," &c. &c.* By Thomas H. Wright, M. D. Physician to the Baltimore Alms-house Infirmary.

While those districts or localities in our vicinity, which are usually the principal theatres of autumnal fevers, were less visited by those diseases last fall, than hitherto, the cases of fever from season causes, admitted into the wards of the Baltimore Alms-house, in the months of September, October, and November, 1829, were more numerous, and of more grave character, than in former years. This seeming inconsistency is susceptible of explanation, in the fact, that the great public works, now in active operation around us, (rail-roads, canals, and works of a more local character, but of considerable magnitude, all recently undertaken,) have called together and concentrated in this neighbourhood, a new and large body of labourers of all classes, constitutions, and habits. Emigrants from Europe just landed on our shores, and full of the constitutional elements of febrile elaboration in a new climate—the mechanics of our towns and vil-

lages, accustomed to shelter from the weather—and the farmer from higher and healthier regions of the country, have all rushed together on the line of these public works, to encounter the vicissitudes of season, and all the evils of exposure, in situations hitherto avoided at one period of the year, as the peculiar theatres of pestilence and death.* But it is not alone exposure to the sun, and rains, and dews, and noisome exhalations of our sickly season, that rendered those works the fruitful sources of disease. Hard work, hot suns, chilling damps, &c. have done their part in producing febrile ferment; yet greater and more serious has been the preparative operation of other causes connected with the prosecution of those works, on the health of those engaged in them. Hard drinking, gross and unwholesome food, the foul hovels in which multitudes herded together at night, and the prevalence of licentiousness and debaucheries of every kind, these are the causes which rendered climate influences so sure, and their consequences so terrible, to the class of persons described, and which filled all the asylums of the homeless sick, in this community, with the subjects of season fever, in all its forms and complications.

It is not the design of this communication to describe in detail the characters or treatment of the fever in question. The subject is introduced mainly for the purpose of submitting to the profession, the general result of a course of management, worthy of notice for its simplicity, and of value on that account, if at the same time, the evidence is satisfactory, that it was equally successful, with any other plan of treatment that could have been employed. To keep this question as much as possible free of all appearance of partial representation, I have abstained from offering any opinions or inferences of my own on the subject, and have asked of the respectable young medical gentlemen who resided in the house, and personally carried on the detail of treatment, answers to certain queries, comprehending every thing important or illustrative in relation to the course pursued. A just confidence in the liberality of the profession, forbids the anticipation of any objection to the report of the class of students, on the ground that their answers may wear a complexion more of courtesy to my wishes, than of conviction on their own part. It is not from apprehension of such objection, but from my own sense of propriety, I take occasion to remark, that when the queries were addressed to them, they were requested to frame their answers by the independent and unbiassed dictates of their personal experience and observation. To

* The works referred to, traverse for the most part alluvial districts, and keep as much as possible the ravines of our inland rivers and streams.

another objection which might suggest itself, to even the most liberal and candid, in reference to those answers; namely, that coming from students of medicine, they want the sanction of age, experience, and capacity for discrimination. To such objection I may state, that the respondents are young gentlemen of talents, zeal, and discretion, worthy the science they cultivate; have been long—two and three years—engaged in the study of their profession; have been trained therein by able public teachers and private instructors; and are familiar with the opinions of books and men, on the pathology and treatment of the diseases, about which they offer the evidence of their own experience.

A copy of the following queries was handed to each of the resident students of the Baltimore Alms-house.

To R. J. Thompson, *Senior Student of the Baltimore Alms-house.*

Sir—Do me the favour to answer, as briefly, yet explicitly as possible, and entirely according to your experience and belief, the following queries.

T. H. WRIGHT.

December 1st, 1829.

1st. In the numerous cases of season fever, remittents, or the same, fallen into the continued type, which came into our wards during the past summer and fall, what single mean of treatment, seemed more than any other, to allay constitutional irritation, regulate temperature, quiet the tumult of the vascular system, tranquillize and comfort the patient, prepare for the beneficial effects of medicine, and thus predispose to convalescence?

2d. What manner of topical address did you find most efficient in abating and extinguishing gastric, hepatic, and cephalic derangements, complicated in various forms and intensity, with the cases of constitutional (season) fever above mentioned?

3d. What class or form of medicinal agents, appeared best to fulfil the indication of quieting irritation in the gastric system, and as sedatives, or febrifuge means, promoting the gradual extinction of fever?

4th. Of the cases of season fever, acute, congestive, typhoid, &c. with various complications, treated by you on the general plan indicated by the answers to the preceding questions, what proportion recovered?

5th. Of those that recovered, what proportion were treated by mercury, or took mercury at all in any form?

6th. Of the cases of the fever in question, that were brought to us under full mercurial action, what influence did the constitutional impression of that agent seem to have exerted over the characteristic form of fever?

7th. Did salivation in those cases, appear to have prepared the system for the solution of season fever; did those cases recover more promptly and perfectly, than others where mercury had not been taken?

8th. Did you know of any instance of season fever, treated in our wards, where the warm bath, however frequently repeated, seemed to relax or depress dangerously, or produced any bad consequence?

Answers to the foregoing queries. By R. J. Thompson, *Senior student.*

To Quere 1st.—"The warm bath.

2d.—"Liberal cupping.

3d.—"Mild febrifuges, (aperients of neutral salts and magnesia, and saline diaphoretic mixtures,) with acidulous and diluent drinks exhibited ad libitum.

4th.—"Of fifteen decidedly marked cases, excluding many less violent, three died. One of these was brought in moribund, another was deeply affected by icterus, the third was labouring under the low grade of fever, complicated with severe syphilitic disease.

5th.—"I administered mercury to two cases only: one of those was mentioned above as being complicated with icterus. The other case appeared to be benefited by calomel, combined with other purgatives, and it was thus exhibited.

6th.—"The 'mercurial action' appeared to have aggravated constitutional (febrile) irritation.

7th.—"Salivation did *not* appear to have prepared the system for the solution of the season fever; and in the cases most vividly in my remembrance, it seemed to have rendered the cure more embarrassing.

8th.—"I remember no such case; but on the contrary, believe I had reason always to felicitate myself upon its employment. Its use was looked upon by all the resident students as highly necessary in our mode of treatment."

Answers to the same. By A. F. Glassell, *Resident student.*

To Quere 1st.—"The warm bath.

2d.—"Cups and blisters, especially cups.

3d.—"Diaphoretics, (with aperients, magnesia, Epsom salt, carbo ligni.) The alkaline salts in combination with the vegetable acids, generally in the form of the neutral mixture.* Acidulated drinks freely.

4th.—"I treated eight severe cases with the remedies above indicated; seven of them recovered.

5th.—"Not one of those who recovered took mercury in any form. I treated one patient with calomel, (in purgative and febrifuge doses,)—he died.

6th.—"Mercurial impression protracted fever by augmenting the irritability of the system.

7th.—"In no instance did the state of salivation appear to prepare for a favourable crisis, and always delayed recovery.

8th.—"The warm bath never, to my knowledge, produced dangerous debility. Some patients expressed the sensations produced by the bath as pleasurable, and requested its repetition. All felt relieved.

* Lemon juice saturated with subcarbonate of potash, sugar, water, and one grain of tartar emetic to four ounces of the mixture.

Answers to the same. By A. L. Warner, M. D. *Resident student.*

To Quere 1*st.*—" The warm bath.

2*d.*—" Cupping freely.

3*d.*—" Carbon and carb. magnesia in purgative doses. Neutral mixture. Warm antimoniated lemonade.

4*th.*—" Twenty-three cases of season fever, with gastric, and other complications, were treated by me, of which number three died. Two were delivered to us in nearly the dying state.

5*th.*—" I did not administer mercury in any case.

6*th.*—" Aggravated the gastric symptoms, and rendered the condition of the patient more embarrassed and distressing.

7*th.*—" The 'mercurial impression' appeared to postpone convalescence.

8*th.*—" The warm bath did not in any instance exhaust or depress injuriously. The patients uniformly expressed great improvement in their feelings, and in many cases spontaneously solicited its repetition."

This paper is in no respect controversial. The whole design of the communication is expressed in the remark before made, "that it was intended to submit to the profession the result of a plan of treatment in some bad forms of fever, (from season causes,) valuable for its simplicity—if found to be successful." I have offered the best evidence on that head which the nature of the subject admits.

Neither is it contemplated by this report to decry the employment of mercury in fevers, when the form of the disease, and the constitutional or pathological circumstances, are adapted to its use. I know, and appreciate highly, the value of the mean in question. In inflammatory, or congesto-inflammatory diseases, when it is indicated to lower the grade of excitement, and avert or abolish embarrassments of important structures, mercury, (in alliance with the lancet,) by its relaxing dominion over the vascular functions, is capable of accomplishing results, alike great and salutary. And again, when diseases of the class described, prolonged into a more chronic form, have impressed derangements of structure and office, the same agent is often capable gradually to dissolve such derangements, and restore both the part and the constitution to healthful reaction. But it is not, (I conceive,) in any of the forms of constitutional fever, characterized at once by weakness and tumult, or complicated with strong pathological developments—profound irritative disorder—in the vital and assimilating functions, that the decided relaxing impression of mercury is often either necessary or safe. Neither in such cases is the accumulative excitant influence of its continuous, though less full exhibition, likely to ensure a salutary crisis.

The following communication from Doctor A. L. Warner, is appended to show in general the character of the fever to which the preceding questions and answers apply:—

"*Alms-house, December 20th*, 1829.

"Doctor T. H. Wright,

"*Dear Sir*—You requested me to furnish a statement of the number of cases treated for season fever in the house, during the past summer and autumn, which I have neglected to this time, and must urge as apology, many intervening engagements.

"I have consulted the register of the house, as to the number, and by the assistance of memory, with my notes, I am enabled to descriminate the type.

"The number of violent cases of the fever, termed by us, gastric fever, was *thirty-five*—of the less violent cases, eighteen—together, fifty-three. Eleven cases proved fatal, *seven* of which cannot be said to have been treated, as they were brought to the house scarcely alive.

"The prominent feature of this disease was great irritation of the vascular, gastric, hepatic, enteritic, and encephalic systems. One of two conditions appertained in all the urgent forms of this disease. Either great restlessness, or a total listlessness of all surrounding objects, the patient in the latter case, lying on the back, eyes closed, and mouth wide open.

"*Symptoms.*—Supersensitiveness over the abdomen, particularly in the epigastrium; great nausea often; sometimes spontaneous vomitings.* Face flushed, (sometimes deep sallow,) and countenance anxious; respiration deep and slow, or short and hurried; tongue dry, and covered with a brown sordes, with deep red edges and tip; pulse, according to the stage, full, large, slow, quick, indistinct, but never the firm corded pulse of true phlegmasia, establishing an important pathological fact, that the tense corded pulse belongs to inflammatory derangement in the serous and fibrous tissues; the free soft pulse, (with fever,) to irritation in the mucous membranes; coma, more or less profound, was common; sometimes fretfulness of mind, and tossing from side to side. In several cases, supersensitiveness all over the body, but particularly along the muscles on the posterior part of the neck.

"Extensive spontaneous sloughing† was established in the early stage of the disease in some cases; in others, various cutaneous eruptions burst forth.‡

"*Treatment.*—Warm bath; mild purgatives, (carbon, and carb. magnesiæ,

---

* Deep green or blackish viscous matter, sometimes in large quantity, was passed by vomiting and stools, and found in the stomach and bowels of those dying of the fever.—W

† Patches of surface inflammation, (erythemoid,) were very common in the fever described, often occurring to parts affected by pressure in lying, but frequently also in seats not influenced by pressure, the top of the shoulder, the forearm, and feet. These partial inflammations often ended in extensive, sometimes deep sloughing, "erythema gangrenosum."—W.

‡ Erythematic and urticarious rashes, (lichen,) purpura, and blebs, or phlyctenæ, often large, especially on the abdomen, and filled with bloody serum.—W.

and Epsom salt, the former mainly,) neutral mixture, lemonade, and cups, (to the abdomen and head,) and if resorted to timely, was almost specific for gastric and constitutional irritation. I am aware you ascribe most importance to the warm bath, of the value of which I had daily proofs, but if restricted to any one prescription, I should select the carbonaceous and magnesian purgative, from the fact that many of the less violent cases, decidedly gastric, were promptly relieved by this medicine, with acidulous drinks. As to the severity of this disease, there can be no doubt. I have been raised in a section of our city, where season fevers annually prevail with great violence, but never before saw the disease in so dreadful and terrific a form as in our wards, during the past fall.

"One point of the pathology of the disease, (frequently referred to by you, when indicating the phenomena of the cases,) is doubtless correct, to wit, spinal and cerebro-spinal developments, (irritation, congestion, and tendency to infiltration,) in the tunics of the medulla oblongata and spinalis. But that result, (as you suggest,) attends the mature stage of the disease, and appears to be often a consequence of irritation propagated from other seats; the nervous system of the gastro-intestinal membrane. Daily recurrence to the symptoms in some of the most violent cases, suggests the fact of spinal embarrassment; for instance, embarrassed breathing was a promiment feature in the urgent forms, often at an early period. Spasms of the muscles of the neck, shoulders, and arms, was another common symptom. Hiccough* was another feature of the disease, which some may regard as the consequence of gastric irritation, but I presume it may indicate irritation at the root of the respiratory system of nerves, (par vagum, phrenic, and accessory,) for if attributable solely to the former cause, it should be an earlier and more uniform attendant. If expression is dependent on nervous influence, anxiety and disorder of countenance affords another argument. This, with jactitation, and unconscious shrugging of the shoulders, strongly import spinal irritation.

---

* *Hiccough.*—A robust man was brought into the Infirmary, with the following symptoms.—Partial stupor, sensible when roused, but generally dozing, and indifferent to every thing. Face dark-red suffusion; tongue deep-flesh red, dry polish on the surface, could with difficulty, from dryness, be in part put out. Surface of the body dry, cold; pulse small, thready, not very quick. This man had, every minute, convulsive hiccough, so strong as to jerk his whole body, and to ring through the ward with a loud echo. The hiccough frequently raised into his mouth, and forced him to discharge by an act, partly of spitting and vomiting, a green slimy matter resembling the juice of fresh masticated leeks or grass. He was treated by the warm bath, cups to the epigastrium, blisters, renewed over and around the region of the stomach; internally, the free exhibition of carbon and magnesia, and the effervescing draught with a few drops—five at a dose—of tinct. opii. The hiccough lasted without intermission, for two days, slowly decreasing in force; then intermitted for some hours, and was renewed more weakly, until the evening of the third day, when it ceased altogether, and the man got rapidly well. Increasing the dose of magnesia was found to exert decided abating controul over the hiccough, and when it purged freely, all the symptoms were relieved. The stools for three days were black green.—W.

"In stating the above number of cases, I have been confined to those distinguished by prominent gastric symptoms. The milder cases, intermittents of the regular or complicate form, by the register, exceed one hundred, all of which have recovered, or are now convalescent. Twenty-two of these cases, more or less complicated when admitted, with visceritis, (subacute,) were treated by myself. Of this number, not one was put on the use of any of the mercurial preparations. The treatment was local and constitutional; cups and blisters repeated in many cases. General treatment, repeated moderate purging, vomiting, and diaphoresis; bland drinks, and simple farinaceous food. When a tonic was employed, it consisted of sulphate of quinine, combined with an alkali, which in most instances kept up a gentle action of the bowels.

"I have appended an outline of Oliphant's case.—Peter Oliphant, (labourer on the rail-road,) was admitted into this house, Sept. 10th.—State when admitted, partly comatose, countenance sallow; deep and slow inspiration. Head somewhat retracted, spasmodic shrugging of the shoulders, and twitching of the muscles of the face and neck; pulse small and weak, not frequent. The integuments on the back of the neck and between the shoulders, red and puffy; great sensibility, (shrinking,) to pressure over the surface of the body, particularly on the back of the neck. On raising this man up, (to examine the neck and back,) after he had been in bed a few hours, a perfectly limpid fluid ran from both ears, amounting in quantity to a drachm; a circumstance the more remarkable, as there was nothing like moisture on the surface of the body.

"This case you pronounced to be season fever in its mature stage; in which arachno-spinitis was fully developed. The state of the patient when admitted did not allow a hope of recovery; he was attended to carefully—but died in a few days.

"Dissection twelve* hours after death. An incision was made in the course of the spine from the occiput to the sacrum, when the nature of the infiltration in the back was explained. Diffuse inflammation of the cellular tissue, had ended in suppuration, and the skin of the back was extensively detached by a puriform fluid amounting in quantity to many ounces. The spinal canal was then opened. The dura mater of the spinal chord was extensively separated, and loaded by effusion;† blood was extravasated at many points, especially about the roots of the intervertebral, (cervical and dorsal,) nerves.‡ The whole spinal chord was enveloped in a web of congested vessels; and small vessels finely injected could be seen abundantly traversing the nerves after their exit from the spine.

---

* Instructions had been given, that shortly after death the subject should be turned on the face, to prevent as much as possible, the state of the cerebro-spinal membranes from being disguised by post mortem infiltrations.—W.

† Two or three large vesicular formations, (bullæ,) of the arachnoid coat, were strikingly prominent on the cervical tract of the chord.—W.

‡ The roots of all the cervical nerves, (those of the spine,) were covered by a clot of blood extravasated into the cellular tissue of the chord. The ligamentum denticulatum was strongly dyed—(blackened)—by the same infiltration.—W.

"Encephalon—Base of the brain enveloped in fluid.* All the tunics of the brain, the arachnoid particularly, tinged red, and their vessels minutely injected.—Stomach—Mucous coat studded with deep red patches."

Baltimore, Dec. 1829.

ART. III. *Case of Elephantiasis of the Scrotum successfully extirpated.* By W. H. RUAN, M. D. of St. Croix. (Communicated in a letter to JOHN RUAN, M. D. of Philadelphia.)

THE following case will probably be considered interesting, especially from the enormous size of the mass extirpated.

The subject of the operation was a negro lad, about nineteen years of age, named Moses, living on the estate La Grange, the property of the heirs of Count Schimmelmann. He had been afflicted, from his early boyhood, by repeated attacks of an erysipelatous inflammation of the scrotum, penis, and surrounding skin and cellular substance, which very soon produced an elephantiasis of those parts. This enlargement continued to increase, and to spread further on the inferior part of the abdomen, on both groins, and on the upper, anterior, and interior surfaces of both thighs. The growth of the tumour was said, by those who were in the habit of observing it almost daily, to have been most rapid during the twelve months immediately preceding the operation. At the time when I was requested to examine the case, the tumour presented a most unwieldy mass of a globular form, reaching three or four inches below the knee-joint, of a diameter of eighteen or twenty inches, and possessing distinctly all the external characteristics of elephantiasis. These last have been so well and so frequently described by authors on the diseases of tropical climates, that I need not here enumerate them. The diseased prepuce, enlarged to the size of a goose's egg, and of an irregular cauliflower appearance, was situated nearly in the middle of the anterior surface of the tumour. No other trace of a penis was perceptible. This organ, as well as the testes, were imbedded so deeply in the body of the tumour, that they could not be felt by the hand. The spermatic cords, however, could be distinguished, by grasping the part very firmly high up; and I felt convinced, by an attentive examination, as well

* When the theca vertebralis was opened just behind the great occipital hole, a watery fluid rushed out of the cranium—to the, (apparent,) amount of four or five ounces.—W.

as by the history which was given to me of the case by intelligent individuals, that although the cords themselves were diseased, yet that no hernia protruded at the inguinal rings. The inguinal glands were much enlarged. The patient could pass his urine freely, and ad libitum. His general health, except when under an inflammatory attack of the diseased parts, was good. He had, I need scarcely say, never enjoyed the sexual intercourse; not even the sexual appetite; and had for some time previously to my seeing him, been entreating to have the whole tumour removed by the knife.

As I felt convinced that the operation, if successful, would be the means of prolonging his life, and as the emasculation of a being in his diseased condition, could be of no ulterior consequence, I resolved on performing it. For this purpose he was conveyed up to the hospital of the estate La Grande Princesse, also the property of the heirs of Count Schimmelmann; this estate being much nearer to the place of my residence. During the first fortnight after his arrival at La Grande Princesse, he was directed to wash the diseased parts three times a day with soap and water, to take two or three doses of purgative medicine, and to use a mild vegetable diet.

Assisted by Dr. Jacobs of this town, (Christianstæd,) I proceeded to perform the operation on the 8th of November, 1828. On examining attentively the neck of the tumour, we found that very little sound skin could be employed in forming the lips of the wound, which it would be necessary to make in a circular direction around the neck; that the whole tumour was somewhat warmer than usual, and of a reddish hue, as if it were in a state of incipient inflammation. As we were of opinion that these circumstances were not of such consequence as to render any procrastination necessary, we proceeded to perform the operation forthwith. The patient was placed on his back on a table, his legs drawn up as in lithotomy, but without binding his wrists and ankles together. The tumour being turned up on his abdomen and chest, and held in that position, I commenced the operation by making an incision through the skin and part of the diseased subjacent cellular substance, in a circular direction, around a portion of the neck of the tumour, commencing at the perinæum. As I prolonged this external incision around the neck, I dissected out the diseased mass from under that part of the skin which was sound, and detached it from its firm adhesions to such parts of the unsound, as were required to form the lips of the wound. In this stage of the dissection, we found the bulb of the urethra so much displaced from its natural situation, and so imbedded in the disease, that we thought it best to continue the

external incision of the neck of the tumour, and prosecute the dissection from above downwards; although, by this mode, the bleeding prevented us from seeing so distinctly the parts to be divided. I now removed the diseased substance from the lower part of the abdomen, from the pubes, and spermatic cords. A broad tape was next passed around each of the cords, so as to prevent hæmorrhage from their vessels. The latter were secured by ligatures immediately after their division, and the tapes were then removed. The patient complained of slight colic pains during the application of the tapes, but was instantly relieved on the removal of the latter. The tumour was next detached from under the skin of each groin, and of about three inches of the upper, interior, and anterior surfaces of each thigh. On prosecuting the dissection further, we discovered the dorsum penis at least five inches beneath the anterior surface of the tumour. The penis was divided transversely, and close to the bulb of the urethra. The dissection was then rapidly concluded by the removal of such diseased substance as had not already been removed in the first stage of the operation.

During the whole of the operation the patient was extremely restless, and on this account his suffering was prolonged to three times the duration that would have been necessary, could he have been persuaded to remain tolerably quiet. It was unavoidably, however, a tedious dissection. Arteries of considerable size and number, sprung at every cut of the knife; and it was indispensably necessary to secure these, either by pressure with the finger, or by ligature, before we could proceed. Many arteries that appeared of considerable size from the first jet of blood which they threw out, contracted after a little pressure with the finger, and ceased to bleed. It was ultimately necessary, however, to secure eleven of them by ligatures. The veins of the tumour, as in almost all cases of elephantiasis, were very much enlarged, and in a varicose state. Two of them required ligatures during the dissection. The testes and penis were placed very nearly in the centre of the tumour. The spermatic cords, from the epididymis to the inguinal rings, were each eight inches in length, and much thickened. The testes were somewhat wasted away, and diminished from their natural size. The tunicæ vaginales contained about four ounces of serum. Strong, ligamentous bands, connected the tumour with, and bound it to, the adjacent bones of the pelvis. The penis was much displaced, running out in a line at a right angle from the ascending ramus of the ischium and towards the centre of the tumour; and was much elongated and very slender; so that the

bulb of the urethra projected at least an inch and a half beyond the ischium.

The incision through the neck of the tumour presented, when the latter was entirely removed, a flat surface of a circular form, and nine inches in diameter. That the penis and testes were so much displaced, and that the spermatic cords were so much elongated, will be no matter of surprise, when I inform you that the tumour, some time after it had been removed, and after at least two pounds of bloody serum had oozed from it, weighed, (in the presence of several gentlemen,) thirty-eight pounds. This enormous mass, when cut into, presented throughout its whole bulk, the usual peculiar appearances observed in the skin and cellular tissue in all cases of elephantiasis.

At the conclusion of the operation, the patient was much exhausted; but this proceeded evidently more from pain, and the struggles which he had made, than from loss of blood. Of the latter, he did not lose more than eighteen or twenty ounces; a quantity too inconsiderable to have produced such an effect upon his robust frame. By administering to him a few drops of laudanum and some Madeira wine, his strength rallied, and enabled us to proceed with the dressing of the wound. A female catheter having been introduced into the bladder, the edges of the wound were brought very nearly together from either side, by approximating the thighs to each other, and were retained in that situation by five stitches of strong thread. The dressing was then completed by laying on some lint and a few pledgets of soft linen; and by retaining these in their situation by means of a T-bandage, through which an aperture was made to allow the projecting part of the catheter to pass. The thighs being bound close to each other, the patient was put to bed. His pulse had now resumed its usual strength and frequency; and he expressed much satisfaction at his having got rid of such a load of disease.

The urine, during his recovery, was drawn off regularly three times a day, by means of the female catheter, which was kept in the bladder during the healing of the wound. No unpleasant symptom whatever occurring, the dressings were not removed until the fourth day. On examining the wound at this time, I found three small patches of the diseased skin sloughing off near the stitches over the pubes: the rest of the wound, (particularly that which was situated between the orifice of the urethra and the anus,) looked healthy. He had had slight feverish symptoms during the first and second day from the operation; but these had now entirely left him. He said

that he felt well, and in good spirits. I cut out the stitches in the vicinity of the sloughs, and directed that a warm bread poultice should be applied, and repeated four times a day to them; that the rest of the wound be dressed with lint; that his bowels be kept moderately open, by the use, occasionally, of small doses of Glauber's salt, and that he have a generous diet.

On the twenty-second day after the operation, all the ligatures had come away from the blood-vessels, the stitches had been removed, and the whole aspect of the wound was florid and healthy. By continuing nearly the same treatment, and by confining him constantly to the recumbent posture, the wound finally healed in its whole extent, in about eight weeks after the operation; forming a cicatrix running in a direct line from the upper part of the symphysis pubis towards the anus.

On the 26th of January, 1829, Moses returned to his work on the estate La Grange.

St. Croix, February, 1830.

ART. IV. *On Rhubarb in Hæmorrhoids.* By SAMUEL JACKSON, M. D. of Northumberland.

DR. RUSH was accustomed to observe in his lectures, that we needed no new medicines, and that improvements in the materia medica were rather to be expected from a more careful investigation of the virtues and doses of those we already possess, than from a further extension of the catalogue. Though we cannot accede to this proposition in its full extent, we are well assured that much is yet to be learned, concerning the latent virtues of many remedial agents; nor do we despair of living to see the time when calomel shall be made to exert all its various virtues without inflaming the mouth, and when tartar emetic shall annihilate fevers without the danger of nausea. Whoever, indeed, shall consider the many new and unexpected uses of these truly polychrest medicines, which have been brought to light within the last ten years, will not be unwilling to admit that something new may be hoped for in every potent article of the materia medica. Nor ought this to be considered as a barren field of inquiry, for this department of medicine has made but little progress since the days of CULLEN, as though the extreme medical scepticism of the great man had damped the ardour of all his successors.

It has fallen to our lot during eighteen years practice, to treat an unexpected number of hæmorrhoidal cases, and we have therefore sought diligently for the best means of opening the bowels, in this troublesome and painful disease. In our early practice, too, we met with many cases among pregnant and puerperal women, in which, above all others, some prompt means of relief, and also some certain preventive, became a serious desideratum to the young practitioner. All the various laxatives recommended in books were repeatedly tried—none of them with entire satisfaction, and some with manifest injury. But we at length found in rhubarb a medicine, which, in our hands, has entirely superseded every other; and we have for the last seven years prescribed it, not only for the purpose of relieving, but also of preventing the disease when threatened, and even of absolutely curing it in its inveterate stages. Whence this knowledge was derived, we do not recollect; there is not a hint of it in any book that we have read, and therefore it is hoped that these few pages may be the means of relieving or of preventing a great amount of vexation and pain.

In the treatment of this disease, the business of the physician is to preserve a continually loose state of the bowels, without the use of any drastic or acrimonious purgative; or in other words, to avoid on the one part, the least tendency to costiveness, and on the other, every thing like sovere purging, or even a relaxing diarrhœa. Some means, therefore, he must seek, which shall procure, in some cases one, in others two or three, loose but consistent stools every twenty-four hours. The best medicine, beyond all comparison, that we have tried to answer this indication is rhubarb. A patient who is hæmorrhoidal and costive may chew a piece of the root every night—sometimes more, sometimes less frequently, but always so as to ensure one or more large loose stools every twenty-four hours. He ought to masticate it for at least fifteen or twenty minutes, and then to swallow the whole mass thus mixed with his saliva. If it prove very offensive at first, let him be assured that a taste for it may be as soon acquired as for tobacco, or some other uncongenial articles; so true is this, that I frequently meet my patients in the street, with a piece of rhubarb in the mouth, as we sometimes see persons with a quid of less wholesome medicine. If the patient chew it with his fore-teeth only, and confine the mass to the front of the mouth, it will prove less disagreeable than when diffused over a larger space. This is by far the best method of using rhubarb as a laxative, as ten grains thus chewed is more operative than five times this quantity taken in powder, and swallowed at once. Whether this is owing to the admixture of sa-

liva is not known; Dr. Rush used to say that the medicine thus taken made a more diffusible impression on the system through the organ of taste. Cullen directs that the ligneous part should not be swallowed. "I have found that the purpose mentioned, (i. e. laxative,) may be obtained if the rhubarb is chewed in the mouth, and no more is swallowed than what the saliva has dissolved. In that case it appears to me that the astringent quality is not largely extracted, and therefore the cathartic will operate as required." This supposed separation of the astringent from the laxative principle, we suspect is erroneous—let the chewers of rhubarb decide for themselves.

This medicine then, *as far as laxatives are needed*, we confidently recommend in hæmorrhoids, as a remedy of surprising efficacy; and if any competent physician, upon fair experience, shall find himsel disappointed, he is desired to pass over any thing we may hereafter publish.

It is not pretended, however, that rhubarb will cure every bad or inveterate case, or that it is not to be occasionally assisted by various means. One important coadjuvant is a laxative diet, and the most necessary article of this is bread made of unbolted flour.* Nor can the knife or ligatures be always dispensed with—a severe, but very often a sure means of relief.

Independent of those large tumours, about which surgeons have written so much, there often occur some that are small, but excessively painful, and of a purple colour, denoting that they contain extravasated blood. Upon making an incision into these, a hard nucleus of blood starts forth, or can be gently pressed out, and by the consequent removal of tension, as well as by the subsequent hæmorrhage, a large portion of suffering is prevented. But if the base of these tumours are small, we rescind them with one stroke of the scissors, which is by far the best method of effecting a radical cure. These tumours, containing nuclei of extravasated blood, are not, to our present recollection, described in books, yet they must have been continually coming under the care of physicians, who have passed them over in the hurry of composition, upon the principle, that "what is known is not always present."

For the prevention and cure of hæmorrhoids in puerperal women,

* This is the household bread of the English; the *panis impurus vel furfuraceus*, which, according to Pliny, the Romans used exclusively for more than three hundred years; it is the common bread of the hardy Westphalian peasantry; it is commended as a laxative by Hippocrates; the ancient *luctatores* used no other; and if we are not very greatly mistaken, there is hardly a condition of the human body to which it is not more congenial than the *white bread*.

we have found in rhubarb a medicine of inestimable value. As a laxative during pregnancy, it is the very best medicine we have tried. In this state of the system, we are certain that many, very many women, unwittingly suffer severely from costiveness, and thus prepare for themselves a hard labour, a protrusion of hæmorrhoidal tumours, a feverish confinement, with a greater tendency to nearly all the complaints which are incident to the puerperal state. It is not enough that during the last months of pregnancy, a free stool shall be procured once in the twenty-four hours. Most women have an inordinate appetite during this period, and they are with infinite difficulty restrained from eating too freely; nay, they are often encouraged to do so, under the opinion that the fœtus is to be nourished, as well as the mother. On this point the practitioner ought to be on his guard, for the consequence is, that they become loaded with offensive feculent matter, which produces restless, feverish nights, œdematous limbs, if not a general anasarca, dyspnœa, and very frequently the most painful hæmorrhoidal tumours. All these evils may be prevented—not by using rhubarb as a mere laxative, but by chewing it in such quantities, as to produce free and thorough catharsis every day. It is true, the lancet and exercise in the open air, particularly in a carriage, are called for; but purging—copious purging, cannot or ought not to be dispensed with.

If the hæmorrhoidal patient suffer from heart-burn, let her not taste magnesia. She may use super-carbonate of soda or of potash, but never magnesia, for reasons which we shall mention below. If hæmorrhoids are found after delivery, let the practitioner replace them immediately if he can do it without too much violence, and the nurse or the woman herself ought to be instructed to do it, if they subsequently come down. But the operation must be done in the most effectual manner—idioque digitus in anum placidè inserumdus est.

It is common to prescribe some neutral salt or castor oil as a purgative during the period of child-bed; but if there be the least tendency to hæmorrhoids, the chewing of rhubarb is far better. In this state, however, it must be used in larger doses, as well as more frequently, and when it is expected to operate the first time after delivery, a bland enema ought to be administered. If hæmorrhoids again protrude, they ought to be replaced, and some emollient ointment used. By these little precautions, which are neither troublesome nor painful, a large amount of the most severe suffering may be prevented.

In what we have here written on the use of this medicine, we have not the least fear of contradiction from the experience of others, pro-

vided they administer it with sufficient freedom. One thing must be observed—it may prove necessary, in some constitutions, to modify its operation with a little ginger, caraway, fennel, or some other aromatic, and in those habits that admit of spirits, the Warner's cordial is an excellent preparation. It is observed by Dr. CHAPMAN, *Therapeutics, Vol. I. p.* 252, that laudanum does not prevent the operation of this medicine. On this proposition we have not had sufficient experience, but Hartshorne's acetated tincture of opium, which we commonly use instead of common laudanum, seldom induces costiveness under any circumstances, and therefore it may be given to prevent the griping pains that rhubarb induces in some constitutions. This is prepared according to a recipe in the *Philadelphia Journal, Vol. XIV. p.* 246. Turkey opium, ℥j.; strong vinegar, ℥vi.; alcohol, ℥iv. Triturate the opium with the vinegar, add the alcohol, and digest for ten days, (or longer.)

This is a substitute for the uncertain preparation *black drop*, and is supposed to be suitable to those constitutions on which laudanum and common opium operate in a well known unfriendly manner. This proposition is true in part only, for while it comforts some of these excitable persons, it distresses others in the usual way of common laudanum. Here then we have the most happy resource in the denarcotized opium, which we confidently believe, from much experience, brings comfort to all. But, "nil omni parte beatum," it occasions costiveness like common laudanum. Whether this evil, with all the rest, is avoided by Carpenter's acidified tincture of denarcotized opium, we have not satisfactorily ascertained; but from some experience we are ready to believe that it is the best preparation of opium now before the public.*

As we have set about writing what we have learned from experience, and not from others, we shall mention another useful means of preventing the disease. When the rectum is known to be loaded with hardened fæces, the hæmorrhoidal patient ought always to soften the mass with an enema of warm water, and to dilate the passage with his finger covered with pomatum or some bland ointment. These means we have often recommended, to the great comfort of those afflicted with a contracted and sore state of the anus from hæmorrhoids.

The old and almost established opinion, that aloes are pernicious in this disease, has lately been so far controverted in London, that this medicine is now given both as a preventive and cure. From our

* See Philadelphia Journal, Vol. XIV. p. 244.

own observations, we are rather inclined to the old prejudice, but cannot positively decide. Among the worst purges in this disease, is calomel and its compounds. We have known persons who could not take five grains, without suffering from it the most painful hæmorrhoids; but of all cathartics, the magnesia is to be avoided with the greatest care, and particularly the calcined. It produces a sensation of intolerable ardor as it passes through the rectum; so great that patients have even resorted to the use of cold water to allay it. This burning is supposed by a most talented man, and a competent observer, to be owing to an uncombined acid passing through the rectum.* This we have many reasons to believe, is entirely erroneous—let experience decide.

It is commonly supposed that riding, and particularly on horseback, is bad for the piles. This, we are satisfied, is mere prejudice, and that it has no such effect, provided costiveness be carefully avoided. We have known persons who appeared half their time on horseback, some of full habits and free living, who yet knew nothing of this disease. Costiveness is probably always the direct or indirect, the remote or the exciting cause of hæmorrhoids. We have known many young ladies to suffer severely from it, who had never been on horseback, and seldom in a carriage, but who, in their mistaken conceptions of an elegant form, had destroyed their capacity for food by tight lacing, so far indeed that some of them would pass from five to twelve days without an alvine discharge. This we are desirous of mentioning, as young practitioners may be often deceived in these cases, and may indeed be unwilling to inquire very carefully into these delicate affairs; for, as Linnæus says, on a similar occasion, "harum rerum indagatio curiosior abominabilis est." He ought to be apprised too, that both parents and children will obstinately deny the fact of tight lacing, and this they may often do with a good conscience, since this tightness, like every thing else, is judged by comparison, and in this case, with minds by no means unbiassed.

If these hints of the virtues of rhubarb should prove the means of introducing it into general use, in the treatment and prevention of hæmorrhoids, we venture to predict that a great amount of pain will be thereby averted; nor can this fail to enhance the reputation of the medical attendant, since whatever physician is able to bring the greatest comfort with promptness and safety, will generally be esteemed the best. Let it be observed, however, that we propose rhubarb merely as a laxative in this disease, nor do we presume that it

* See Thomas Cooper, M. D. on Domestic Medicine.

possesses any other anti-hæmorrhoidal virtue—of its accidental benefits in the same cases, we are not now treating; the reader has already learned them from various books and from experience—but if it possess no other than its laxative powers, we must contend that these are quite peculiar, and admirably adapted to the cure of hæmorrhoids. Costiveness is attended with such a multitudinous concatenation of evils, and rhubarb is so peculiar and salutary in this respect, that if any one is at all disposed not to pass a morning without a free evacuation, particularly if he be plethoric, bilious, gouty, in the decline of life, or the least disposed to hæmorrhoidal tumours, let him chew this medicine—I had almost said every day and night of his remaining life.

Northumberland, Penn. May, 1830.

ART. V. *Observations on Mania a Potu.* By JESSE CARTER, M. D. one of the Resident Physicians of the Philadelphia Alms-house Infirmary.

AMONG the varieties of mania which I have observed, none have arrested my attention, and interested my feelings so much as mania a potu. The history of this form of cerebral disease is short. Previously to the commencement of the present century, it was not known as a distinct affection; but was confounded with mania from other causes, and of course subjected to similar treatment. The mortality consequent to this error, was so great, that a very eminent physician despaired of the recovery of almost every case to which he was called. The first distinct account of it, was published by Dr. PEARSON, of Newcastle, about 1801; it was subsequently described very succinctly and ably, by Dr. SUTTON, whose experience appears to have been confined to the lighter grades of the disease. Since then, it has been variously described by numerous writers, particularly in our own country. A very elaborate essay on the subject, was published a few years since, by Dr. COATES of this city. It was with the unsettled and indistinct ideas, produced by the almost contradictory statements of different writers, that I undertook the charge of the cells of the Philadelphia Alms-house, where this disease is very common.

After a careful examination of the symptoms, and the modus operandi of the remedies employed, I became convinced, that writers had taken too limited views of the subject; that each plan was bene-

ficial under particular circumstances, but that a combination of them, so as to suit the existing state of the system, was still more advantageous.

Having enjoyed an extensive opportunity of observing the disease, and of marking its progress, I am induced to offer for publication in this Journal, a few remarks upon its symptoms, pathology, and treatment.

The disease is generally preceded by irregularity of thought; deficiency of memory; anxiety to be in company; excessive peevishness; passions excited by the most trivial circumstances; the mind active and wandering from subject to subject. Objects exciting horror perpetually present; excessive nervous tremors; constant jactitation; slumbers short and interrupted by frightful dreams; which are followed by continued watchfulness, as the disease advances. The countenance is generally of a leaden hue; frequently flushed with indication of great anxiety. The eye is often muddy and dull, occasionally in violent cases injected; though generally it is not much affected. The state of the pupil varies; it is sometimes contracted, at others dilated, under apparently the same group of symptoms; the former state, however, is most frequently met with. The skin is differently affected, sometimes it is warm and dry, but usually cool and damp, and occasionally covered with profuse cold sweats. This state of the surface, is most frequently met with, among those who have been long accustomed to the excessive use of spirituous liquors.

The tongue is generally clean, though sometimes, when the primæ viæ are much deranged, it is coated with a yellow fur. In the latter stages of the disease, it becomes very dry and chopped. There is generally, preternatural heat about the head, attended occasionally with pain, oftener with fullness and heaviness. The pulse is commonly full, but compressible and not very frequent. In old drunkards, the pulse is small and undulating, and as the disease advances to a fatal termination, it becomes weaker and more frequent. In the commencement of the disease, the stomach is often considerably affected, which is indicated by a want of appetite, nausea, and sometimes vomiting, but as the mania becomes developed, the unpleasant sensations disappear. The bowels are confined, but rarely operated upon by medicines. The condition of the muscular system varies according to the state of the constitution. Those who have not been seriously injured, sometimes exhibit extraordinary instances of strength, whereas, in persons who have been long victims to intemperance, there is generally an agitation and unsteadiness in their movements, so as to indicate great weakness.

The state of the intellectual functions vary very much; patients who are robust, are occasionally very violent, rendering it necessary in some instances, to subject them to restraint; but those who are more advanced in years and have been long victims to excesses, are very easily managed. A patient labouring under this form of mania, is in a state of perpetual excitement, laughing and talking by turns incessantly. Frequently he will converse with his medical attendant, about his ordinary affairs with great precision, telling him that he has been constantly engaged in matters of high import; having visited several places since he saw him, though he has not moved out of his room. If he be contradicted in any of his phantasies, he adheres to them very pertinaciously, and becomes much enraged; but if he be dealt with kindly and soothingly, and his attention gained, he will generally reply to questions very correctly.

The cause of all this confusion of ideas, is the derangement of the faculty of perception; the judgment upon the subjects presented to it, is wonderfully correct. Observing on one occasion, a patient trembling in the corner of his cell, I asked him, what was the matter; to which he replied, that there was a rattlesnake under his bed, and that there were some persons who were trying to shoot it; and in order to escape being shot, he had left his bed, and taken refuge in that position. I have also seen a patient pressing against the wall, with his utmost force, in order, he said, to prevent its crushing him. The objects of delusion vary very much. Sometimes patients are annoyed by cats and mice; frequently by snakes; occasionally they imagine the devil has presented himself, and claimed them as his property. One of the patients perpetually saw some one at the window, wishing to shoot him. Writers on this subject, record many singular cases of aberration and self-delusion, the details of which are more curious than useful. Convulsions have not been very frequent to my observation. Out of nearly a hundred cases, there were not more than a dozen with epileptic symptoms, except when they were the immediate precursors of death.

The preceding is a short history of the disease in its simple form. It is, however, often complicated with other affections, particularly when it occurs during the hot season of the year, when it presents more decided marks of inflammation, and is much more difficult of management, and more fatal in its result, than at any other period. This condition in its early stage, is characterized by a pulse much more tense than usual; tongue red at the edges; often very dry and cracked; head-ache; less quickness of comprehension; eyes often injected; skin dry; delirium very violent. A second stage soon super-

venes, when the skin is bedewed with cold clammy perspiration; pupils are contracted; pulse very frequent and almost imperceptible; low muttering delirium; with gastric symptoms of an aggravated and unmanageable character, which continue until death closes the scene.

Pathology.—In order to arrive at any definite ideas on this subject, it will be necessary to inquire into the causes of this disease, and their mode of action on the system. The predisposing causes are admitted by all writers to be the habitual use of diffusive stimuli; but more particularly of ardent spirits. The delirium of opium-eaters, is partially the same, only of a more aggravated character. The first impression of these stimuli is to excite the powers of life, to elevate the mind, and to render the imagination vivid. This excitement after a longer or shorter duration, is always followed by a state of depression; the system becomes weakened, the sensibilities blunted, and the spirits dejected. To escape from these uncomfortable sensations, the unhappy victim has again recourse to stimuli; this is again and again repeated, sometimes for several weeks; the patient during this state of almost perpetual intoxication, takes but little nourishment of any kind. The stomach so long accustomed to these excessive potations, at length requires their constant use, to enable it to perform its functions in the animal economy. Should the patient under these circumstances break off suddenly, and abstain altogether from his accustomed stimuli, the abrupt withdrawal of so much excitement, would weaken very much the general action of the system, producing very considerable exhaustion; but in every depression, nature makes an effort to react, so that shortly, there is developed preternatural action, particularly in the brain. The patient is in a state of perpetual watchfulness, the imagination is constantly employed in conjuring up objects which are not present; these hallucinations increase until mania a potu becomes fully developed. While the nervous system is in this state of excitement, the other organs of the body are more or less weakened, as is evinced by the softness of the pulse; the languid capillary circulation; the coldness and paleness of the surface, &c.

As the result of all my observations and reflections, I should say, that the disease consisted essentially in a morbid excitement of the brain, as is exemplified in the increased activity of its functions, with a depression of those of organic life. My limits will not permit me to enter into an examination of the theory which ascribes the disease to gastric origin, or the one lately advocated in Germany, of its consisting essentially of meningitis. As high authority may be adduced

in favour and against these opinions, I feel a reluctance in adducing my own, particularly as the post mortem appearances presented in mania a potu, do not always satisfactorily illustrate the pathology of the disease.

Brain.—The dura mater is rarely inflamed; I have no recollection of having seen it in that state. The blood-vessels of the pia mater are augmented in size, and generally congested, especially those of the velum interpositum. The tunica arachnoidea is thickened, and presents an opaque appearance, especially at the base of the cerebellum. Effusions of serum are often found in the ventricles, generally colourless, though occasionally sero-sanguineous. When the vessels of the brain are much congested, effusion is rarely observed. The morbid phenomena vary very much; in one case, in a patient found in the street in a state of stupor, with the subsequent development of mania a potu, a coagulum was found in the anterior and middle lobes of the right hemisphere of the cerebrum, of an oval form, about two inches and a half by two. The substance of the brain around the coagulum, was grayish and diffluent. I have seen two or three cases of a similar kind, though not so extensive.

Stomach.—The mucous membrane is generally altered in structure, being thickened and smooth, the villi obliterated, with other marks of chronic gastritis.

Liver.—Is much enlarged, exhibiting frequently the fatty degeneration, often granulated, of a yellow or fawn-like colour. The structural alteration of these last-named organs, must be regarded as coincidences, rather than as illustrating the pathology of the complaint under consideration, since they occur in almost all diseases of habitual drunkards.

Diagnosis.—The peculiar symptoms of this disease are difficult to describe, but when once seen, they are never forgotten. An inquiry into the habits of the patient, the great activity of his mind, the constant perception of objects which are not present, the ease and docility with which he takes the medicine prescribed, and the respect and deference paid to his medical attendant—all these circumstances will enable us to recognise the disease without much difficulty. From the delirium of fever, it is distinguished by the suddenness of the attack, the patient a day or two previous being in apparent good health; from inflammation of the brain, by the more moderate degree of the attending fever; the pulse is softer; still more particularly by the absence of turgescence of the eyes, and impatience of light, which is so characteristic of the latter disease; from confirmed mania, by the re-

gular exacerbation of the disease as night approaches, and the tendency to remit towards morning, the reverse of which takes place in regular mania.

Prognosis.—The first attack in a constitution not much shattered by disease, generally terminates favourably. But after the third attack, when the vital powers become very much weakened, the case is one which occasions great anxiety, requiring constant watching. In such patients, effusion on the brain is extremely apt to occur. When combined with inflammation of any of the vital organs, the prognosis is still more unfavourable. Convulsions are much to be apprehended; and with this complication almost all die. If the pupil be dilated or contracted, insensible to light; the eye wandering, and not resting upon any particular object, more imminent danger is threatened than merely from its injection. A want of correspondence in the pupils is universally fatal. Short disturbed slumbers, accompanied with subsultus tendinum from which the patient starts with affright and then falls into a low muttering delirium, are very unfavourable. Those who take opium in excess, are in greater danger than the mere drunkard. When there is constant increase of nervous tremors, pulse increasing in frequency, and at the same time becoming smaller and weaker, we may anticipate a fatal result. While, on the contrary, if the patient becomes quiet, and falls into a sound sleep, we may expect a recovery though even here I have been occasionally disappointed. The disease, as has been already stated, is much more violent and intense during hot weather than in more temperate seasons; though the mortality may be lessened by judicious practice, the proportion of fatal cases must always be greater. In the Philadelphia Alms-house, between the 1st of November, 1828, and the 1st of February following, out of seventy cases, there were only nine deaths, being a little more than one in eight. Whereas, between June 10th, 1829, and September 10th, following, out of seventy-five cases, there were eighteen fatal, being about the proportion of one to four.

Treatment.—When the first symptoms of mania a potu are beginning to be developed, attended with strange hallucinations, with great restlessness, but the patient still rational, all the unpleasant symptoms are occasionally dissipated by the timely employment of an anodyne, which, by inducing sleep, quiets the excessive action of the nervous system, and gives rest to the exhausted frame. To meet these indications, when the stomach would bear it, I have found the following combination very serviceable. ℞. Lac assafœtida, ℥vj.; acet. tinct. opii, ʒij. Of which a table-spoonful is to be given every hour or

two, according to circumstances. Its action is very much assisted by the free use of the tincture of hops. After taking this remedy, the patient will often awake refreshed, but weakened from his long fast, and is soon restored to his usual health by tonics and generous diet. It is too often our unfortunate lot, however, not to see the patient, until the disease is fully formed, when we must have recourse to measures which produce a more powerful and permanent impression. Among these opium first claims our attention. The dreadful effects which followed the antiphlogistic treatment, when exclusively relied on, may be readily imagined, since the disease is found to be generally under the controul of such a powerful stimulo-narcotic as opium. Unhappily for the interests of humanity, physicians are too liable to run into extremes. Observing occasionally the surprising relief afforded by this remedy, they had recourse to it exclusively, without paying any regard to the existing state of the constitution. In consequence of this error, the mortality, though diminished, was still considerable. In the employment of such potent agents, there should be great caution and vigilance. The stomach, so long accustomed to the use of powerful stimulants, loses its tone sometimes in a very extraordinary degree, so as not to be immediately affected by the remedy, when given in very large doses. Suddenly, however, its sensibility is revived, and we are summoned to our patient, labouring under all the symptoms of poisoning from this drug.

In cases of simple mania, with great coolness of the surface, with soft pulse, unaccompanied by any preternatural heat of the scalp, I would rely on opium, combined with the free use of his accustomed stimulus. It is not often that such cases have been presented to my notice; those of the infirmary belonging to the lowest class, and who have been accustomed for years to excessive drinking. Hence all their organs are in a state of derangement, occasionally there is gastritis, pneumonitis, hepatitis, and even inflammation of the brain. These complications render its management still more difficult. Too often in such cases we are obliged to be mere spectators, being compelled to see death rapidly approach without possessing any means of arresting its progress. In most of such patients, opium would only hasten the termination. In cases where there is active determination of blood to the head, as is evinced by the excitement of the mind, heated state of the scalp, flushed face, and injected and rolling eye, I have found it impossible to produce sleep by the exclusive use of opium. The system is exhausted by excessive exertion, the eye will retain its restlessness and watchfulness, the voice becomes more enfeebled, symptoms of stupor and insensibility, with stertorous breath-

ing supervene, and the patient expires in a fit of apoplexy, or else lingers for several days, and finally dies of effusion on the brain. If, on the contrary, the active state of the system had been reduced, the inordinate determination to the head diminished by general and local depletion, and revulsion to the abdominal viscera by means of active cathartics, together with free use of cold to the head, and then the opium employed, it would no doubt have been followed by the happiest effects, in calming the excitement and producing sleep.

There is no disease which I approach with so much dread as mania a potu; the uncertainty of success where it is most anticipated, and the occasional recoveries from apparently the most desperate circumstances, always occasions anxiety and solicitude to the physician.

It is stated by very high authority, that if we procure sound sleep all danger is at an end; but my observations have led me to a different conclusion, having repeatedly seen patients in the Alms-house, awake from a long and continued sleep, as delirious as ever, and the disease notwithstanding proceed to a fatal termination. From this view we are led to an erroneous practice, without any regard to the highly excited condition of the stomach and brain, which not unfrequently prevails; we proceed to the indiscriminate use of opium, which, as might readily be supposed, only aggravates the symptoms.

We are struck, while reading the records of medicine, with the omission of the effects of powerful remedies, when given imprudently. We find but few men who have sufficient moral courage to confess, that they have hastened the death of a fellow being by the excessive use of any remedy; hence the silence of authors, on the consequences of the exhibition of too much opium in mania a potu. Dr. Coates remarks, that there are no limits to its use until the desired effect is produced; that he has never seen, heard, or read of any injury resulting from such bold procedure. My own observation has repeatedly shown me the error of this view. I have often seen patients become worse after every dose of opium, whereas, when suspended, and the excitement of the head reduced, and the opium then resumed, sleep would readily be induced. I have no doubt of having witnessed several times, death hastened by the effects of opium. One case has made a distinct impression upon my memory. A young woman whom I saw in the evening, labouring under the disease in its most violent form, excessively delirious, eyes injected, and perpetually rolling, face flushed and scalp unusually hot. Opium was freely given during the night; next morning her eyes were fixed, breathing stertorous, subsultus tendinum, and in fine every symptom which authors describe as following the use of this drug, when taken too largely. It is singular

that in every other disease, we inquire particularly into the state of the patient, and modify our treatment accordingly, but in this most formidable one, we throw aside all our usual principles of action and abandon ourselves to a blind and exclusive system of routine.

After a careful perusal of the treatment as recommended by Dr. Coates, the only distinct ideas left on my mind were that sleep was the sine qua non, and opium the only remedy which should be given without fear, until sleep or death takes place, without any regard to the state of the system. Such exclusive rules are always detrimental. Though I would be very cautious in the exhibition of opium, still I would trust to it as my sheet anchor. Other remedies may palliate and assist, yet without its judicious application, we shall seldom witness a happy termination. My object in the previous remarks is not to lessen the value of the remedy, but only to render us more prudent in its use, and attend more strictly to the state of the system; and also to recommend the employment of some adjuvants, which I have found to succeed in a very happy manner.

The quantity of opium which is necessary to be given, varies according to the condition of the patient. When the disease is fully developed, and the system is in a proper condition to bear it, it is necessary to begin with six grains, and repeat it in an hour; and then suspend it. When given in this decided manner, a very powerful impression is produced, and often the patient will fall to sleep in a few hours; but if this happy circumstance should not occur, and should excessive determination to the head exist, after reducing this excitement, I would recommence and pursue the same practice. I have no doubt that the exhibition of the remedy in this manner would save much time and uneasiness. When given in the small doses usually recommended, and continued at long intervals, we only keep up the excitement of the nervous system without the narcotic effects of the remedy being induced. The form which I generally prescribed was powdered opium. I occasionally employed the acetated tincture without any very evident advantage over the other. Besides, the strength of this menstruum is so variable as to forbid its general employment. I used it in a few cases in the form of an injection with decided benefit; the quantity prescribed was generally about one hundred drops, which was repeated when necessary. The salts of morphia have lately been employed with considerable success, but my experience of their utility is very limited; for as they were very expensive I did not feel myself at liberty to prescribe them often—but from the smallness of their dose, and their general operation on

the system, I have but little doubt that they would constitute the preferable form for the exhibition of a narcotic.

Blood-letting.—Occurring as this disease generally does in persons whose constitutions have been wrecked, or very much shattered, the system exhausted by want of sustenance for several days, venesection is rarely demanded. The employment of it, in a majority of instances, would be extremely hazardous; and the practiser of so bold a measure, should rejoice if his patient did not speedily expire under the operation. Occasionally we encounter the disease in a young man who has not seriously injured himself by his habits, connected with considerable excitement, pulse possessing more than ordinary force, with great determination to the brain; I should not in such cases hesitate to bleed freely. Writers on this subject are too much haunted by that spectre debility; hence they condemn depletion of every kind. In these cases, where the general strength will not bear venesection, but with too much activity of the sanguineous system for the successful exhibition of opium, the application of cups or leeches to the temples, or behind the ears, by their direct depletion, relieves the determination, and quiets the inordinate action of the brain, rendering it more susceptible to the action of a narcotic. In fact, I have derived so much advantage from their employment, that I very rarely visited a case which would bear them without ordering either the one or the other; giving the preference generally to cups, as being more economical and convenient, and creating a more permanent irritation externally; and in no one case do I recollect of their application being unattended with benefit. By paying attention in this manner to the state of the system, I scarcely ever had any difficulty in producing sleep.

Cold applications.—The great sedative influence of cold has been generally recognised since the publication of the celebrated reports of Dr. Currie. When called to a patient very wild, with great heat of surface, and action in the head, the dashing of a few buckets of cold water over the head, if the constitution has strength to react, is exceedingly beneficial. Cloths wrung out of cold water are not less serviceable. The extremities should at the same time be stimulated by means of sinapisms. By pursuing these remedies, the increased cerebral action is diminished, the excitement of the system equalized, the patient is then prepared for a favourable exhibition of opium, and other stimulants, which, without this preparation, would only aggravate the disease. It is of much importance to attend to the peculiar character of this form of the complaint, and regulate the remedies accordingly.

Purgatives.—In this disease the absorbents of the mucous membrane of the primæ viæ appear to be so peculiarly inert, that by stimulating the intestines with mild cathartics, the susceptibility to the action of other remedies is greatly increased. The best practice usually is, at the commencement of the disease, if the patient's strength will warrant it, to give a dose of senna and sulph. magnesia, or a purgative injection. In those cases, where active determination to the head exists, I know of nothing more useful than a brisk cathartic, in subduing the inordinate action, by revulsion to the abdominal viscera. I have tried in several instances, the combination of calomel and opium without any material advantage, and with the effect, often of protracting the disease, and rendering the patient uncomfortable by a tedious sore mouth.

Blisters.—The use of blisters in this disease, as a general rule, is very questionable. In cases of much excitement, they are inferior to topical depletion, and frequently by their irritation increase the restlessness and watchfulness of the patient; but when the active stage is past, and there is considerable danger of effusion, their application to the back of the neck and extremities, is often followed by the happiest effects.

Ardent Spirits.—These are remedies which are generally too little recommended. Many physicians, under what I consider mistaken notions of morality, proscribe them altogether, not recollecting their obligations to use the most effectual means for the removal of the diseases of our frame. To prescribe them in this affection, does not sanction their employment in health, more than it does that of opium or any other remedies which may have been given. Individuals who have been so long accustomed to excessive potations, as to have incurred the usual penalty, (mania a potu,) are fully sensible of the impropriety of their manner of living, and of the desolating effects of ardent spirits on their systems. They want moral courage, however, to resist the cravings of the stomach for this destructive poison. The remedies of their physician, whatever they may be, have therefore, but very little influence on the subsequent course of the patient. In many cases of great nervous excitement, ardent spirits, particularly in those patients accustomed to their use, have decided advantage over any form of opium, and under such circumstances, the most conscientious medical adviser, need not hesitate to sanction their use. From the pathological view of the disease taken in the preceding pages, it appears to be essentially connected with an exhaustion of the functions of organic life; this stimulus, by arousing its action,

would break up the train of morbid associations, and have a tendency to bring about that happy balance which constitutes health.

Though in this disease, reliance has generally been placed upon opium, yet there are some adjuvants, which, by producing a sedative action, may enable us to diminish advantageously, the enormous doses of this article. Among these camphor stands the highest. Its first impression is that of a stimulant, but the ultimate effect is narcotic. During my residence in the Alms-house, it was repeatedly tried without any evident advantage. Occasionally in opium-eaters it was very beneficial. I have found next to opium, assafœtida the most valuable remedy, and in those cases of gastric or cerebral excitement where opium is inadmissible, it is by far the most efficient agent; it calmed the patient, and produced little or no increased excitement. I order the lac assafœtida, as freely as the patient can bear it, and occasionally the substance; when there is great irritability of the stomach, I preferred it as an injection. Occasionally in old drunkards, when the system is much exhausted, the pulse small and tremulous, skin cold and moist, limbs very nervous, the use of the ammoniated julep every hour or two, according to circumstances, together with rubbing the surface with a decoction of cantharides and spirit of turpentine, have had a most salutary effect. This treatment increases the action of the capillaries, and gives vigour to the general circulation. Afterwards, the moderate use of opium produces sleep, and a consequent mitigation of all the maniacal symptoms.

When the mania subsides, the patient is very weak, and requires the support of a generous diet. Under such circumstances, I have found soup made very strong with Cayenne pepper, porter, and the occasional use of the patient's usual stimulus, with an anodyne in the morning, rapidly restore the patient to his usual health.

Before finally dismissing the subject, I will make a few remarks upon the modification which the treatment requires during the continuance of hot weather, for however appropriate the plan generally recommended may be, in the simple disease occurring during winter, it is necessary to be very cautious, in those cases which are met with during summer. Patients prematurely placed upon opium, or even after some previous preparation, very quickly pass into the second stage, or fall into a state of coma, which is but the precursor of death.

When the pulse is tense, countenance flushed, with head-ache, blood should be taken from the arm, but not very copiously. From

eight to fourteen ounces is generally sufficient and free from danger; a greater quantity would probably occasion prostration. If gastric inflammation be present, cups, or what are more appropriate, leeches, should be applied to the epigastrium, and demulcent drinks freely administered—cups to the head should seldom be neglected in mania a potu; but in this form, topical depletion is imperiously necessary. Fomentations, with warm blankets, sinapisms to the extremities, and ice applied to the head, after being shaved, are very useful. No opium should be given during the continuance of these symptoms, but after their removal or mitigation, six grains of opium, and but once repeated, seem more successful than the frequent administration of smaller quantities, which latter in many instances, seem to have increased the tendency to effusion. This, however, is a point not entirely settled.

When a dry tongue occurs, even without great cerebral tendency, opium seems always to do mischief, by increasing the inflammation, which prevents its narcotic action. Calomel, or small quantities of blue mass, have sometimes seemed beneficial in exciting secretion, and removing the dryness of the tongue. Free purging, though very beneficial, when the head is alone affected, should be resorted to with much caution in inflammation of the stomach and intestines.

Case I.—Robert Peacock, æt. 35, had mania a potu once, has been drinking very hard for the last month, and slept out nearly every night. Admitted May 6th. Symptoms on admission were those of acute pleuritis connected with epileptic convulsions, (for the first time in his life,) which were relieved by cupping, blistering, purging, shaving the head, and constant application of cold water, with the occasional use of the following:—℞. Lac. assafœtida, ℥vj.; acet. tinct. opii, ʒij. But sleep not succeeding, on the third day mania a potu became developed.

9*th.* Is very wild, constantly imagines that there is a rattlesnake running across the room, and persons with guns endeavouring to shoot it; occasionally jumping up and getting into the corner, in order, he says, to escape the shot which are fired at the snake. Head feels heavy, skin rather dry, pupils contracted, complains of pain about the umbilicus, pulse is full, with some force, 80 per minute. Ordered cups to seat of pain, and to the temples; four grains of opium every two hours. Afternoon. Is still very wild, face greatly flushed, covered with profuse perspiration; has only taken four grains of opium. Ordered cups to head to be repeated, and opium continued.

10*th.* Took only four grains; went to sleep very shortly after the cups were applied, and slept nearly all night, and on waking was more quiet and rational; bowels not open for two days past. Ordered R. Calomel, grs. x.; opium, gr. j.; and large bottle of porter—10 gtts. of acet. opii in each glass. Evening. Bowels not open, complains of slight pain in the head, other symptoms the same. Ordered cups again to head; injection of senna and salts; and xx. gtts. acet. opii every hour.

11*th.* Took one hundred gtts. of acet. opii, slept about four hours, bowels opened three times. Complains of nausea, and pain on pressure in the epigastric region. Ordered cups to it, and the following:—Calomel, grs. iv.; opium, grs. ij.; q. b. h. Evening. Has taken twelve grains of calomel, bowels once opened, head is excited, pulse has rather more force. Omit powders, and apply cups to head.

12*th.* Slept some last night, head is still a little flighty; says he saw twenty persons last night, and is now occasionally talking to persons whom he imagines are present, though when spoken to, he answers very correctly; other symptoms are diminished. Ordered cups to head.

13*th.* Slept some towards morning, still flighty, head hot, with some uneasiness. Ordered cups to be repeated to head.

14*th.* Is now asleep, and slept nearly all last night.

15*th.* Slept to-day and yesterday, says that he never felt better. Was soon afterwards discharged cured.

Case II.—Margaret Robards, æt. 40, has been long exposed to bodily and mental suffering. In order to drown them, she has been accustomed to drink excessively. For several weeks past she has been travelling, and is now very much exhausted. Has not slept any for several nights. Was admitted May 26th. She is now quite wild, but appears disposed to sleep. Ordered xl. gtts. acet. opii.

27*th.* Has slept none, was very wild all night, pulse is small, and rather feeble, 96 per minute, pupils contracted, skin moist, bowels open. Ordered cold to head; assafœtida mixt. q. b. h.; and blisters to the arms. Evening. Is very restless, afraid that we are going to injure her; epigastrium very tender upon pressure; tongue inclined to dryness; other symptoms the same. Ordered mustard plaster to stomach, and xxx. gtts. acet. opii, q. b. h.

28*th.* Was soon relieved by the plaster, and after taking 60 gtts. of acet. opii, went to sleep, and continues so now. Afternoon. Slept about eight hours, is still wild and restless, pulse small and weak.

Ordered acet. opii, 30 gtts. q. b. h., to be alternated with the ammoniated julep, and with the free use of whiskey. Evening. No alteration; has taken 60 gtts. acet. opii. Ordered black drop to be omitted, and to take pulv. opii, q. b. h., with continuance of treatment. 10 P. M. Head considerably excited by the opium and stimuli, face flushed, scalp hot, skin cold and dry. Omit opium; rub the skin with decoct. cantharides and turpentine; apply cold to head, and blisters to ankles.

29*th.* Slept very little last night, but is now asleep.

30*th.* Slept very well last night, is now composed and rational. Is directed, in addition, some pepperpot.

From this time she gradually recovered her strength by the continuance of the generous diet, and occasional use of the diffusible stimulants, and was discharged cured in the course of a fortnight.

Case III.—George Dormont, æt. 35, admitted May 16th, 1829. Very intemperate, has been drinking very hard for two weeks, and has not slept any for the last three nights. Is now quite wild, imagines there are persons in the room who wished to shoot him; skin warm and rather dry; pulse full and soft, 80 per minute; head hot; tongue moist and clean; pupils slightly dilated; bowels not open; considerable tenderness in the epigastrium. Ordered four cups to head, and four to epigastrium, with cold applications to head, injection of senna and salts, immediately after four grains of opium and continue three every two hours.

16*th.* Has taken sixteen grains of opium; cups bled very freely; slept about two hours this morning; is still extremely wild; pupils contracted; bowels not open. Ordered, repeat cups to head, and senna injection. Afternoon. Resume opium, four grains every two hours. Evening. Having considerable cerebral tendency, six cups were repeated to head, and opium continued.

17*th.* Took yesterday twenty-eight grains of opium; is more quiet; bowels only scantily opened. Ordered senna tea. Evening. Pulse soft and frequent; head free from cerebral excitement; skin moist and warm. The opium was resumed.

18*th.* Took eighteen grains of opium; slept very little; is very wild; says his head feels very well; pulse full, and of considerable force. Ordered, venesection ℥x. and continue opium. Afternoon. The blood drawn is cupped and buffed, with very little serum; pulse has risen in force. The orifice was again opened, and blood permitted to run until its tension was reduced, which required about ℥viij.; continue opium.

19*th.* Slept at intervals three hours last night; took yesterday thirty-two grains of opium; pulse is frequent and soft, 108 per minute; is much calmer. Ordered a little porter. Evening. Has slept six hours during the day; is very restless; pulse has become rather tense. Ordered venesection ℥viij. and resume opium.

20*th.* Took yesterday sixteen grains of opium; more quiet, and slept about four hours during the night; some excitement still remaining. Ordered senna tea.

24*th.* For several days he has been purged, and taken from forty to sixty drops of acet. opii at bed time; has slept generally very well; still some cerebral irritation; pulse full with considerable tension, 72 per minute; mind yet wandering; is very fearful of dying. Ordered cups freely to head, which not relieving the excitement, he was in the evening bled ℥xij. which reduced the volume, and increased its frequency to 90.

25*th.* Mania still perceptible; head feels heavy and dull; tongue is slightly furred and red at the edges. Ordered, ℞. Blue mass, grs. v. at night.

27*th.* Became quite wild. Is directed a shower bath, which though repeated, was only of temporary benefit, and as the pulse still possessed some force and tension, he was bled ℥xiv.; omit the opiate, and continue blue mass.

From this time, by the occasional use of cups, cathartics, and perpetual blisters to the back of the neck, and the steady continuance of the blue mass, his symptoms became gradually alleviated, when in about ten days, gentle ptyalism supervened, which entirely dissipated his mania, and he was in a very short time restored to his usual health.

For the following case I am indebted to my friend Dr. Gerhard. James Love, æt. 35, very muscular, not much exhausted by his habits. Admitted September 1st. Pulse tense, frequent, and rather full; tongue moist, little furred; much head-ache; great nervous excitement; constantly making efforts to leave his bed; perception much less quick than usual; head hot. Cups were ordered freely to temples and back of neck, cold applications to the head, and the following; ℞. Calomel, grs. xij.; pulv. rhei, ℈j.; pulv. opii, gr. ij. The opium was used in small doses to prevent interfering with the purge. Evening. Medicine has operated, but the patient more excited; pulse as before. Ordered venesection, ℥xij.; during the bleeding the pulse fell, the pain in the head diminished. The black drop was given, as no other complication existed.

2d. Improving; still some excitement in the head. Ordered assafœtida mixture; cups to head—porter allowed.

3d. Patient delirious, but apparently with the usual form of mania a potu. Ordered opium, gr. iv. to be succeeded by gr. ij. every two hours.

4th. Determination to head, although he had enjoyed a short sleep. Ordered cups to back of the neck and head; calomel, grs. x. to be followed by senna tea. Evening. Medicine operated; less head-ache. R. Opium, grs. v. followed by grs. iv. every two hours.

5th. Took last night twenty grains of opium; no sleep; pulse feeble. Ordered blisters to back of neck; porter and tinct. of hops allowed. Evening. Resume opium, when sleep followed, and recovery took place.

ART. VI. *Account of a Case of Trismatic Tetanus, produced by the Passage of large, rough, and angular pieces of Clay from the Intestinal Canal into the Vagina, and Cured by Tobacco Injections.* By BURLEIGH SMART, M. D. of Kennebunk, Maine. Read before the Medical Society of Maine, at its Semi-annual Meeting at Portland, in January, 1825.

IN March, 1824, I was requested to visit R. S. an unmarried female, aged twenty-two years. On my entrance into her room, I was struck with the view of a pale, ghastly visage—the eyes rolled up, angles of the mouth retracted, nostrils drawn upward, and the cheeks backward, mouth closed—exhibiting altogether an expression of indescribable suffering. She was lying extended on her back, her head and heels only touching the bed, the spine recurvated into an arch of almost a semicircle—her jaws were locked. In about a minute the spasm subsided, and she swallowed with some difficulty, a teaspoonful of oleum terebinthinæ, from which she experienced immediate relief. The dose of oil was repeated in about five minutes, in consequence of a partial return of the *cramp*, as the attendants termed it; which was that violent constriction and pain, darting from the ensiform cartilage to the spine and extensor muscles of the neck.

During the intervals of the cramp, as she had but a few slight returns of the trismatic and tetanic spasms, she gave me the following history of her case:—she had been of a feeble constitution from infancy; three years ago her health became impaired, and she was affected with that erratic appetite, called by GOOD, limosis pica; to

gratify which, she had eaten for a *long time*, and in *large quantities*, magnesia, chalk, and clay; this complaint was attended with a troublesome head-ache, and other marks of derangement of the functions of the digestive organs.

She had menstruated irregularly, and the discharge was deficient in quantity and abnormal in quality. About a year ago, she became affected with sharp pains through the abdominal and uterine regions, accompanied with heavy bearing-down sensations, like parturient contractions of the uterus—swelling and exquisite tenderness of the abdomen—and retention of urine, requiring the repeated use of the catheter. After some weeks' suffering, she was attacked with trismatic tetanus; the trismus continued forty-eight hours, during which time the disease came on in paroxysms; a trait that it has constantly exhibited in every attack.

The resolution of the first trismatic spasm was attributed to the use of prussic acid.

About this time there was a *discharge* of a considerable quantity of *fœtid, purulent looking matter, per anum et vaginam;* and after much suffering from this bearing-down sensation, conjoined with a pricking, tearing, or lacerating feeling, an angulated piece of earthy matter, of a light colour, interspersed with white spots, and of a hard and compact texture, was discovered in the vagina and removed.

The second attack of trismus was about a month subsequent to the first, and continued between three and four days, and left her spontaneously. This was also succeeded by a dejection of this earthy matter, which the attending physician had already pronounced to be the product of "gravel of the womb."

The third attack was in September, seven or eight months subsequent to the second. It continued, with intervals of relief from the spasms, about a month.

In the intervals of the attacks of trismatic tetanus, she was not free from any of the concomitant affections, only suffering them in a less degree than seemed necessary to induce the tetanic spasms.

When she came under my care, she had been labouring under alternations of the spasms, and intervals of comparative ease, for about a week, during which time the violence of the spasms had been moderated by the use of laudanum and bleeding, the latter always producing a resolution of the trismatic spasm when carried to the production of incipient deliquium—but the relief was very transitory. I directed her to take a tea-spoonful of the oleum terebinthinæ—ext. cicuta, five grains, and calomel, five grains, alternately, every hour.

Next day no return of the tetanus; freedom from the cramp and pains in the uterine region; a number of copious dejections from the bowels. Used the catheter, and removed some of the earthy matter from the vagina. Intervals of the medicine lengthened.

Two days afterwards I saw the patient; no return of tetanus; ptyalism; catheter used, and more earthy matter extracted from the posterior and superior part of the vagina; the matter was always found occupying the space between the cervix uteri, and the recto-vaginal septum; the projecting part of the cervix uteri being carried forward toward the symphysis pubis, the os uteri was always impervious to the finger, nor could any fissure or opening be detected by the most careful manual examination, though the relative situation and extreme tenderness of the parts were unfavourable to a satisfactory investigation.

The patient continued exempt from any tetanic affection about ten days, the gastric and abdominal pains being rendered tolerable by the free use of ext. cicuta, which, when used in sufficient quantities to relieve the pain, was productive of derangement of the cerebral functions.

During this period, a hard circumscribed tumour in the right hypogastric region, was discovered, occupying a line drawn from the umbilicus to the superior anterior spinous process of the ilium of the corresponding side, exquisitely tender, hard, and inelastic, which was asserted to have been noticed for a long period. She was now directed to keep the bowels open, and to use the turpentine and cicuta pro re nata.

It should be remarked, that every attack of tetanus, succeeded by a dejection of earthy matter, was followed by a copious secretion of milk, and a number of times by the formation of an abscess in the breast.

In a few weeks the patient was able to visit me, a distance of eight miles; but she suffered much abdominal pain, produced by the motion of the carriage.

The second day subsequent to her visit, I was desired to see her; when she informed me by writing, her jaws being locked, that her suffering from excruciating pain had been inexpressibly severe ever since her ride; that she felt a consciousness that her situation was more perilous, and the event more precarious than it had ever yet been; and that this opinion arose from her feelings being so different from any she had ever before experienced; that the abdominal tumour had descended; that she suffered powerful but ineffectual expulsive

pains, and a sensation as if a large body was tearing and forcing its way through a narrow aperture.

The spasm of the jaws was relieved by bleeding, and the same prophylactics used as before. But the latter were unavailing, notwithstanding sufficient quantities of calomel were introduced to excite a smart degree of ptyalism.

After bleeding was deemed improper, suppositories containing about twenty grains of pulverized tobacco, with five grains of opium, were directed to be used per anum. The use of the first, in about two hours, was followed by nausea, vomiting, and a solution of the trismatic spasm of forty-eight hours standing. She had before objected to the exhibition of enemata, and she was now averse to the use of suppositories, from the local distress they occasioned; she was therefore desired to use the same remedies, *per vaginam*, which she did a few times with success; but this form soon became ineffectual, but not till she had repeatedly been annoyed by the taste of tobacco in the mouth at every supervention of vomiting subsequent to the introduction of the remedy. A piece of tobacco was afterwards employed in the same way, with a ligature around it, by which it could be easily withdrawn on the accession of the vomiting, and with the same success as the preceding.

The last form also soon proved ineffective. It was now found that the remedies used for the tetanic affection, paralyzed those expulsive efforts by which the dejection of the earthy matter was effected; it was therefore deemed adviseable to suffer the disease, as far as was compatible with safety, to take its own course, with the hope that the expulsive efforts would prove adequate to the dejection of the earthy matter, and thereby put a period to the paroxysms, as the descent of that substance was always the exciting cause of the tetanus.

By the use of the forementioned means, the pains and spasms were a little mitigated for a few days, and twice the jaws were opened by the tobacco; once for about twenty minutes, in which time she drank a tumbler of water, another time for about fifteen minutes, during which she was unable to take any thing, by reason of the distressing nausea at the stomach, occasioned by the tobacco.

With the exception of these intervals, the jaws were *uninterruptedly closed eight days and eight nights*, the tetanic spasms harassing her at more or less distant intervals, and the abdominal pains continuing excruciating.

During the first few days, the severity of suffering seemed slightly mitigated by the remedies used, but they all soon lost their effect.

She had now lain eight days without food or drink, save one draught of water, and suffering the most exquisite torture, and the vital powers now appeared rapidly sinking. In this situation it was determined to make one desperate effort to rescue the patient from this terrible disease, thinking with Celsus, that "satius est enim anceps auxilium experiri quam nullam;" and knowing the powers of tobacco in prostrating the powers of animal life, the conviction forced itself upon my mind, that if I could subdue these powers, it would then be practicable to subdue the disease. It was therefore determined to make a cautious repetition of the exhibition of the tobacco, in small quantities, until some powerful effect was wrought either on the subject or the disease. An infusion of the article was prepared, and a part injected *per anum*, and a part *per vaginam*, and the latter retained by closing the orifice with a cloth.

This double application was repeated once an hour to the third time, when unequivocal evidence of its effects showed itself; the patient became pale and cold; tremor of the extremities; a small feeble pulse; anxiety and oppression at the præcordia, with efforts to vomit, soon followed by powerful vomiting, and a gradual opening of the jaws.

This seemed to break the charm, for although she had many slight returns of the trismus, yet not one exceeding a few hours in duration, and this without any tetanus.

Large and repeated dejections of the earthy matter,* now took place in rapid succession, and she gradually recovered from every symptom of tetanus, and has continued exempt to the present time, a period of about five years. She has had no dejections of the earthy material since convalescence from that attack. The tumour in the hypogastric region has also disappeared, with all those distressing pains in that region and in the uterus. Menstruation is more regular and better in quality, but still she is somewhat affected with the limosis pica, but she abstains from gratifying this appetite. Her ge-

* A specimen of this matter accompanies this communication. It bears a perfect resemblance in all its external and sensible characters to the clay found between the backs of old chimnies, even in the empyreumatic smell that the clay in such situations imparts, from its impregnation with smoke. This peculiar smell of the clay was very perceptible soon after it became dry. Some of the pieces of clay contained minute splinters of wood and straw intermixed. The patient asserted that she had been in the habit of often picking pieces of dried clay out from between the bricks of the chimney, and eating it. The aggregate quantity of this earth, which was evacuated per vaginam, is estimated to have measured about two quarts.

neral health is feeble, but she is free from the burden which so long incommoded her by its weight and size.

In this case, the purulent discharge per anum et vaginam, preceding the dejection of the earthy matter into the vagina, furnishes a clue to the manner in which this matter arrived there; and the previous habit of the patient in eating earths, and the abdominal tumour, render it probable that an accumulation of these earthy substances took place in some portion of the intestinal canal, forming a sac which eventually became so occluded from the intestinal canal, as to prevent the fæces passing this way, and its weight causing it to descend into the pelvis, where adhesion to the surrounding parts took place, and finally ulceration, by which a passage was formed, through which the earthy matter made its exit into the vagina.

A case of the formation of a sac by the coats of the intestines, and occlusion from the common canal, by taking a large quantity of an amalgam of quicksilver, is reported in some of the early numbers of the Philadelphia Journal of the Medical and Physical Sciences, which bears some resemblance to the manner in which I have supposed the earthy matter to have become occluded from the alimentary canal.

Kennebunk, Maine, March, 1830.

ART. VII. *Observations on the Medical Topography of Callao, with an Account of Disease of the Liver, as it appeared on board of the United States' Frigate Brandywine, during a Cruise in the Pacific Ocean, in the years* 1826–7–8–9. By W. S. W. RUSCHENBERGER, M. D. of Philadelphia, Assistant Surgeon U. S. N.

I SHALL premise the few remarks I have to make on derangement of the hepatic system, with a short account of the climate of the coast of Peru, or rather of that part of it near the capital, where we spent a large portion of our time, and which appeared to be a very active agent in the production of disease.

The harbour of Callao, situated in 12° 2′ south latitude, and 7′ west longitude from Washington, is a mere open road-stead, defended from the prevailing southerly breezes, that veer from south-east to south-west, by the island of San Lorenzo; it has a south-east and north-west direction, and its highest point is elevated more than five hundred feet above the sea. It is made up of dark reddish co-

loured rocks in a decomposing state, and sand. It is almost always shrouded in vapour, and is entirely barren. This island is resorted to by foreign ships of war for the purpose of refitting, and is the burying place allotted by the Peruvian government to those not of the Catholic faith.

Callao consists of several dirty, unpaved streets, flanked on either side by little huts made of mud and reeds, or "adobes," (sun dried bricks,) and the inmates are not less wretched in appearance than their dwellings. It is defended by three castles. A little to the southward is "Old Callao," which was sunk by an earthquake in 1746, which at the same time severed in two parts the island of San Lorenzo. On a level with the surface are several arches that formed the ceilings or roofs of the churches of the ancient town, and now serve as receptacles for the dead—or rather did so until being filled up,* they could contain no more. Bodies were thrown promiscuously into these pits in the same state in which they may have died, without even stripping off their clothes, and are found here entire in a state of dry preparation. During the siege of the castles in 1825, the bodies of the slain accumulated to such an extent, that vessels in the harbour were compelled to remove to the island, to avoid the effluvia that was wafted to them by these putrefying, or rather drying heaps. For several miles to the northward and southward, the country is low and marshy, but gently rises on the eastern side into the stupendous mountains of the Andes, whose summits are ever hidden in snow. The soil is rich and vegetation luxuriant. The Rimac, a small rivulet, empties into the bay a little to the north of the town. It is not navigable.

The atmosphere of Callao is hazy and damp during a greater part of the year. In mid-summer† the sun shines out in the middle of the day, and the mornings and evenings are cloudy, and sometimes a heavy mist falls. In the winter season these mists prevail, and the air becomes so cool that a fire is comfortable in the extreme parts of the day. The mean temperature of the year may be stated at 67° F. the temperature seldom rising above 83° F. or sinking below 55. The barometer is subject to but slight changes, and is generally stationary on board at about thirty inches. In Lima, distant from Callao about seven miles in a north-east direction, the barometer stands generally at twenty-seven inches and four lines, varying only from two to four lines and without any established order. Baron de Humboldt remarked in 1802, that the barometer was subject to a constant

* In 1825. † January and February.

flux and reflux in the twenty-four hours.* Similar observations have been subsequently made.

Rain in distinct drops is rare, and it may be said with propriety that it never rains in the valley of Rimac. The dates of thunder-storms are accurately preserved, and it is said that since 1582, only four have occurred. This is one of the most singular phenomena of nature, and I believe the climate of Peru is, in this particular, unique. Various explanations of this fact have been offered, among the best of which is that of Mr. J. F. Daniel. He very ingeniously supposes that as atmospheric evaporation and precipitation may be regarded as a constant distillation, it might be possible that a condenser existed in the neighbourhood of a place in the form of a mountain, which might determine the stream of vapour to set constantly upon itself, and convert it into rain to the exclusion of the valley over which it might pass.† This seems plausible, for it is a maxim in Peru, "En el estiò cuanto mayor el calor en la costa, tanto mas abundante la lluvia en la sierra"—in the spring, the greater the heat on the coast, the more abundant the rain in the mountains. So it would appear that the rain in the mountains is in a ratio to the evaporation from the Pacific. Dr. Unanue attributes it to the electrical state of the air, which he supposes to be constantly surcharged with that fluid, and hence there is a strong current towards the mountains which are electrified negatively, and for the same reason thunder and lightning are hardly known in the vallies near the sea, although it is not uncommon to see the electric fluid playing among the peaks of the Cordilleras. May I be permitted to inquire where is the electric generator that is to keep the air in a positive state, while it is constantly attempting to restore the equilibrium, by discharging the superabundant fluid in the Andes, and how is it that the latter keep in a constant negative state, notwithstanding the supply from the atmosphere?

There is a phenomenon observed in this climate which is not satisfactorily accounted for, viz.: that putrefaction does not readily take place in animal substances exposed to the influence of moisture at night, succeeded by heat in the day time, but as I have stated, whole bodies dry into mummies. Is this owing to the rapid evaporization that takes place from the Pacific—thus counterbalancing the effects of heat and moisture—or has the electrical state of the atmosphere

* See Observaciones sobre el Clima de Lima, por Doctor Unánùe. Madrid. Segunda edicion, 1815.

† See Caldcleugh's Travels in South America.

any influence over the putrefactive process? I was disposed to think that the salt deposited at night by the heavy dews might be a sufficient antiseptic, for not unfrequently the soil is covered in the morning with a thin scale, which crackles much like thin ice when trodden on, and possesses a salt taste—and this is particularly the case after the heaviest dews—but as the same phenomenon is observable several miles from the coast, where we would suppose the saline deposition did not reach, though I was unable to ascertain the fact, leads me to wait for a more satisfactory explanation.

The most prevalent diseases are dysenteries, diarrhœas, hepatic affections at different seasons, and intermittents of the tertian form throughout the year. Nor are they exempt from inflammatory and typhoid fevers, and epidemics cannot be considered as rare, though more common since the revolution commenced than under the Spanish dynasty.

Disease of the liver appeared with us in various forms, making its attack sometimes slowly, sometimes suddenly, and at others the organ was seriously affected, before a symptom manifested the existence of morbid action. When it came on slowly, the patient first complained of a severe pain in the right shoulder above the clavicle, describing it sometimes as a heavy weight, and sometimes as of an aching or shooting kind. The tongue was sometimes clean, but usually furred at the root. The skin was generally in a normal state. The pulse was usually small without either much frequency or tension, though it was occasionally hard and somewhat quick. The bowels were generally costive, though the contrary sometimes obtained. The pain in the shoulder seldom lasted twenty-four hours, before there was a sensation of soreness in the right hypochondrium, manifested on pressure or by a deep inspiration. The pulse became fuller, and occasionally the stomach irritable. An aching pain in the side soon followed, accompanied by a sense of weight and fullness. Besides these, there were several other symptoms that did not always attend, viz.: itching and tickling of the glans penis, scalding of the urethra, high-coloured urine, sharp pain under the scapula, sallowness of the skin. Sometimes the pain was in the left shoulder. Sometimes the disease commenced with nausea and vomitings, with chills and flushes, attended by fever, before there was any indication of hepatic disease, and such cases proved most difficult of management.

Not unfrequently it came on suddenly, while the patient was engaged at his ordinary duties, with a lancinating pain under the edges of the ribs of the right side, sometimes so severe as to render respiration extremely painful. The skin being frequently cool and moist,

tongue furred, bowels costive, with a small pulse, which at times was almost imperceptible, and an anxious expression of countenance.

Sometimes suppuration was established in the liver, without any premonitory signs that would lead us to suppose, à priori, that such was the fact. A slight cough, with languor and a disposition to sleep, were the only morbid symptoms complained of by the patient, till rigors, with a throbbing pain in the side, declared but too clearly the nature of the case. Three cases of this kind occurred on board of the Brandywine. In the first, there was no pain complained of at any period of the patient's indisposition, and it was not till after he suffered from rigors, that he manifested any uneasiness in the right hypochondrium, from pressure, or on a deep inspiration. The abscess discharged itself into the intestinal canal. The second case commenced with pain, and a sensation of weight in the stomach, furred tongue, full hard pulse, and occasional chills and flushes. After being twice bled, and having his bowels opened with calomel, he complained of pain in the right shoulder, and the succeeding day of pain in the right side and epigastrium. With intervals of several days of entire relief, from the use of cups, blisters, slight mercurial courses, &c. affording at times every prospect of a happy termination, he was under treatment during three months, when suppuration took place. He lived several days after the abscess burst, having severe chills every night. The matter, which was of a leaden colour and very fœtid, was discharged by the mouth and per anum. The liver was very much enlarged. In the third case the matter was discharged through the lungs. Some time previous to his death he complained of catarrh, of which he was relieved, and went to his duty. In two days he returned, complaining of pain in the side and shoulder. He was bled, cupped, and blistered. The abscess burst suddenly at night, and he threw up nearly a quart of very fœtid, leaden-coloured pus. He said at the time he felt something give way just under the right nipple, where for three weeks previous he had a "tickling pain," which ceased after the evacuation of the matter; also that he had, during the same period a dry cough, but so trifling in his opinion, as not to require attention. He lived for ten days, discharging pus through the lungs, and on the last two days by stool mixed with a bloody serum. Besides these cases, I saw several similar ones on shore, in none of which was there any effort made on the part of nature, towards discharging the matter externally, and if we are to believe Mr. Clark, cases of this kind rarely occur. "Although," says he, "tumours are often to be seen externally of considerable dimensions, I never knew an instance of their bursting outwardly; and from what

I could learn, I believe an instance of the kind was never known in India."*

In all these forms, the mind seemed equally to participate. The patient was always despondent, as to the result of his case—gloomy, irritable, and suspicious; in fact, no man is amiable when the function of his liver is deranged in the slightest degree. Nor can we be surprised at this, when we take into consideration the strong sympathies existing between the stomach, the brain, and that organ. The fact of suppuration of the liver following injuries of the brain, can only be explained on this ground, and it has been said that the affection of the mind is the primary disease. There can be no doubt but particular mental affections do produce disorder of many visceral functions, and perhaps the liver suffers from this cause as often as any other organ. Nostalgia may not be an unfrequent cause of deranged hepatic function. In short, these two very important viscera are to each other as two opposed mirrors, the images of one being reflected to the other, it not being material on which the light first impinges to produce the effect.

The first indication in the treatment was to relieve irritation, and to obviate or subdue inflammation. The means employed for this purpose were bleeding, both general and local, blisters, and purging with the mercurial preparations; and where there was congestion, I think I have seen benefit derived from the use of emetics, which equallize the circulation, and determine to the surface. The second was to restore the liver to the exercise of its healthy functions, for which purpose an alterative course of mercury, in the form of blue pill, was resorted to. Where suppuration had taken place, treatment of whatever kind afforded us but slender hopes of a favourable result. Mr. Clark says that recoveries do sometimes take place when the matter is discharged through the lungs. We are directed to open the abscess so soon as fluctuation is perceptible, as affording the best prospect to the patient. This should be done not by plunging an instrument at once into the abscess, but first cutting down upon the tumour, to ascertain whether adhesions have formed between the peritoneum of the abdominal parietes and that of the liver, which is very frequently not the case, and should it not be found adhering, the case ought to be left to the resources of nature; for should an opening be made, the cavity of the peritoneum would probably receive the pus, and the patient, in consequence, most certainly perish. In the se-

* Observations on the Nature and Cure of Fevers, &c. by Thomas Clark, Surgeon. Edinburgh, 1801, p. 69.

cond case alluded to, an incision was made over the liver after pus had been discharged, with a view to open it, but the peritoneum was not adhering; the wound was converted into an issue, in hopes that adhesions might form from the irritation it created.

With regard to bleeding, I think that patients do not bear the use of the lancet so well in hot as in cold or temperate climates, and Baron Larrey expresses a similar opinion.* The same may perhaps be said as respects purging with active articles—at least the observation will hold good with soldiers and sailors. These latter differ from every other class of society in their manners, their customs, their diet, and even in their exposure to the causes of disease. Intemperance is looked on by them rather as a virtue than a vice, consequently nine-tenths of them are habitual drunkards, and it is well known that such persons will not bear heroic remedies. The quantity of whiskey allowed daily by government is in my opinion, sufficient to destroy the best constitution in a very short period. Whether idle or employed, each man drinks a half pint of this miserable liquor in the twenty-four hours. A gill is taken at meridian, and another at four o'clock, P. M. scarcely allowing the effects of the first draught to subside. Besides this, it is common to give an extra "tot," as they technically call it, when they have been more than usually exposed. If they must have the half pint, would it not be better to divide it into three or more parts, or make the interval longer, instead of keeping them part of the day in a constant state of excitement, and at night, when exposed to the more probable cause of disease, left without any stimulus; nay, in a state of depression, consequent upon the excitement of the day?

I may here remark, that change of climate affords the only prospect of a radical cure, for so long as the patient is exposed to its effects, so long is he liable to returns of the disease, which eventually terminates in chronic enlargement. Even after this has taken place, a change of climate, with a well-regulated prophylactic plan, very frequently succeeds in restoring the patient to health, though many are doomed, after a residence in hot climates, and particularly in the West and East Indies, to drag out a miserable existence, in spite of all our art has suggested.

The skin is the organ that probably feels the first and immediate influence of hot climates. It soon loses here, in a great degree, its perspiratory function, from constant excitation, and foreigners, in a very short time, observe the difficulty they have in inducing diapho-

* See his Memoirs and Surgery.

resis by the usual means, viz. exercise. The skin becomes husky, and loses that soft elastic feel which it commonly possesses. With it, the pilous tissue suffers, and the hair falls out without any evident cause. Next perhaps in order, is the mucous lining of the primæ viæ. Its secretions are altered, and sometimes increased. The mucus of the intestines becomes more attenuated, more of a serous character, and seems incapable of defending the delicate lining membrane of the stomach and bowels from the action of ingesta, which at other times would be innoxious, and hence the prevalence of dysenteries and diarrhœas.

It is not difficult to trace liver disease to the effects of climate through the medium of the skin, if we acknowledge the cutaneo-hepatic sympathy, as pointed out by Dr. Johnson, in his work on hot climates, and which is there made so plain, that it is unnecessary for me to say any thing on the subject. Yet there is another medium by which the liver may take on diseased action. I believe that it appears often as the sequela of dysenteric complaints. I can conceive that inflammation of the mucous membrane of the duodenum may travel along the ductus communis, and so implicate the liver; and I am disposed to account for the increased prevalence of hepatic affections among our crew, after suffering from epidemic dysentery, by referring to this cause. The cases I have alluded to had suffered severely from that disease.

The regulations of the ship prevented post mortem examinations, so that I can say nothing of autopsical appearances.

ART. VIII. *Extirpation of a Cancerous Eye.* By HARVEY LINDSLY, M. D. of Washington, D. C.

ABOUT the 1st of March, 1829, I was consulted by Michael Furman, respecting a disease of his right eye. He informed me that the complaint commenced about three years previously, in the form of a small white speck on the anterior surface of the eye; which, however, did not prevent his attention to his daily occupations, until some time in November, 1828, when it became painful, and began to enlarge with considerable rapidity.

He had consulted several physicians, and by their direction had employed various remedies without any beneficial effect, and in some instances with decided injury. Lunar caustic and astringent lotions were the principal articles made use of.

It should be mentioned that the patient was about fifty years of age, a carpenter by trade, and of intemperate habits.

As other remedial agents had failed, and as he was evidently getting worse, I deemed it my duty to extirpate the diseased mass, as affording the only chance of preserving the patient's life—although owing to the length of time the disease had existed, and the irritable and debilitated state of his system, I placed but little dependance even on this last resort.

The disease consisted of two distinct masses—the one nearest the nose of a dark red colour, and a soft and gelatinous consistence—the other of a dark purple, and cartilaginous hardness. Both together filled up entirely the cavity between the nose and eyebrows, so that in a front view the eyelids could not be seen.

On the 24th of March I proceeded to extirpate the eye, in the presence of Drs. Sewall, Bulfinch, and Dunn, and several medical students. The mass was so large as to render it necessary to make an incision through the integuments at each angle, in order that the eyelids might be sufficiently retracted to proceed with the operation. After completing the extraction in the usual manner, I filled up the cavity with lint, applying compresses, &c. The hæmorrhage was considerable—$\frac{z}{3}$xiv. to $\frac{z}{3}$xx. were probably lost, during, and immediately after the operation, from the branches of the ophthalmic artery, though I did not find it necessary to apply any ligatures. A slight oozing followed, but ceased entirely in about twelve hours after the dressings were applied. Ordered two grains and a half of opium before leaving the patient.

25*th*. Has had a comfortable night, and slept soundly; pain very slight. Prescribed an aperient and light diet.

26*th*. Still doing well. I now placed the patient under the care of two intelligent students, with directions to change the dressings every morning, and keep the bowels open. Healthy granulations soon made their appearance, and in a month the cavity was entirely filled up, with little or no deformity. But notwithstanding the apparent success of the operation, I felt an anxious solicitude about the ultimate fate of my patient—fearing that the disease might return and still prove fatal. My apprehensions were not without foundation, as in about five months, from the period of the operation, the disease returned. As he had removed from his former residence, I saw him but once during this time, but was informed that he died eight months afterwards.

Upon dissection of the extirpated mass, I found the humours wholly absorbed, and their situations occupied with a hard substance, of nearly

the same colour as the external portion. Cysts, also, were interspersed, containing a substance equally hard, and of different colours, from a light ash to a dark purple or black. The sclerotic coat was a little thickened, but the optic nerve was of its natural size and colour.

This case is interesting, as it adds one more to the many proofs we already possess, of the importance of early extirpation in this formidable disease.

It is a fortunate circumstance that the distinction between cancer and fungous hæmatodes has been so clearly drawn, that no apology now exists for confounding them—this, at least, is the case, if the description of the disease in our systematic writers can be depended on. The diagnosis is important, inasmuch as it seems now generally conceded, that extirpation of fungous hæmatodes, unless most cautiously performed, and in the very beginning of the complaint, is not only useless, but decidedly injurious—rendering the disease more rapid in its progress, and more inveterate in its character—whereas the removal of cancer has often been successful, even in a stage considerably advanced.

Washington, D. C. May, 1830.

ART. IX. *Case of Rupture of the Uterus, successfully treated.* By WILLIAM S. HENDRIE, M. D. of Hilltown, Penn.

MRS. —— a small woman of healthy constitution, thirty-three years of age, pregnant with her eleventh child, was on the 17th of May, 1829, at about 12 o'clock in the morning, taken with labour pains, and sent for her physician, Dr. SAMUEL CAREY. Her labours had been uniformly tedious and painful, rendered so in a great measure by a small bony tumour, situated on the projection of the sacrum, lessening the antero-posterior diameter of the pelvis, at least one inch, or one inch and a half.* At 10 o'clock the os uteri was so high as to be reached with difficulty, by a common examination; it was however considerably dilated, and the presentation natural. She was bled to the amount of ℥xx. and an enema administered, by which the rectum was freely evacuated. As had been the practice with most of her preceding labours, the secale cornutum was given; this soon produced its usual effect, and continued for some time; during a violent expulsive effort, the pains suddenly ceased, the abdominal tumour changed its regular appearance, she declared something unusual had occurred, and supposed she was about to be de-

* Of the ten preceding labours the forceps had been used twice; she has however given birth to five living children.

livered of twins—the head immediately receded, and considerable hæmorrhage took place.

This is the history I received of the case from Dr. Carey. I saw her at 9 o'clock in the evening, about eight hours after the accident had occurred. At this time she was labouring under great anxiety; considerable prostration; pulse frequent and feeble; extremities cold; abdomen very much distended, and in some parts extremely tender; hæmorrhage very much diminished; the child could be distinctly traced through the abdominal parietes. No doubt existed with regard to the nature of the accident that had occurred. After a careful examination, we ascertained that the rupture was on the anterior part of the uterus; that the child, together with the placenta, had entirely escaped into the cavity of the abdomen—the rent commenced in the cervix on the right side; extended obliquely toward the left about three inches; the remainder of the laceration was at the junction of the uterus with the vagina. The fundus of the uterus was pretty firmly contracted, but the body and cervix flaccid and yielding. The child lay obliquely across the abdomen, the head towards the right iliac region.

Notwithstanding the length of time that had elapsed since the occurrence of the accident, as the parts concerned in the injury did not oppose any obstacle to delivery, *per vias naturales*, we felt justified in making that attempt, especially as the history of all preceding cases, left us nothing to hope from the conservative powers of nature; having made a candid statement of the probable result to our patient and her friends, they promptly acquiesced, and even expressed a willingness to submit to any operation we should think necessary, to relieve her present anxiety and distress.

Having placed her in a favourable position, the hand was introduced, (the bladder being previously evacuated,) the feet were readily obtained, and the body of the child delivered with the utmost facility; some difficulty was experienced in getting the head through the superior strait of the pelvis, owing to the exostosis already mentioned; this was finally accomplished with the aid of the crotchet; the hand was again introduced, for the purpose of extracting the placenta, which was found in the left side of the abdomen. Some large coagula were brought away entangled with the secundines. In searching for the placenta, my hand was in contact with the naked intestines, from which circumstance, no doubt can remain of the rupture being complete. After ascertaining that none of the bowels protruded from the laceration, she was placed in bed, in a very exhausted condition—a cordial anodyne draught was given—two hours afterwards she expressed herself as feeling quite comfortable.

18*th*, 6 o'clock, A. M.—Has rested very well since 12 o'clock. System appears to be re-acting; pulse remains small and frequent; complains of some soreness but no pain; yet the abdomen is quite tender to the touch, and is somewhat distended. Directed fomentations to be applied to the abdomen, and a cathartic mixture. 6 o'clock, P. M. Abdomen greatly distended, and extremely painful, exquisitely so on pressure; pulse frequent and tense; skin dry and hot, cathartic has not operated. Ordered, v. s. ℥xviij. cathartic medicine to be repeated, and its operation solicited by an occasional enema—fomentations continued.

19*th*. Passed a very restless night, bowels freely opened this morning, since which the pain and distention of the abdomen very much diminished; pulse less frequent, yet somewhat tense. Ordered, venesection, ℥xij.—nitro-antimon. pulv. every two hours.

20*th*. Is much better—no pain, and very little tenderness on pressure; pulse soft; skin cool; countenance lively and cheerful.

21*st*, et seq. She is still improving, thinks herself able, if permitted, to sit up and have her bed adjusted. Rest, and a low diet were enjoined, and persevered in for several days; her convalescence was rapid and uninterrupted; four weeks after the accident, she was able to attend to her domestic affairs; complains of no particular uneasiness, except the inconvenience resulting from a urinary fistula.

January 20*th*, 1830. Enjoys at present, remarkably good health; has menstruated regularly since August. In July an apparatus was procured, for the purpose of obviating the inconvenience arising from the fistulous opening in the bladder: it has been worn till within the last few weeks, and has effected a radical cure.

Hilltown, Bucks County, Penn. March 1*st*, 1830.

ART. X. *Meteorological Observations, made in the City of Philadelphia, Latitude* 39° 57′, *and on the Island of Tinicum, eleven miles south-west from Philadelphia, Latitude* 39° 48′, *for the year* 1827. By GEORGE F. LEHMAN, M. D. Lazaretto Physician of the Port of Philadelphia.

(Continued from No. XI. page 138.)

THE observations were made in the city, for the months of November, December, January, February, March, April, and May, and the seventeen last days of October.

AUGUST, 1827.

DAYS.	FAHREN. THERMOM. 10 A. M.	10 P. M.	WINDS.	WEATHER.
1	80	79	S. W. fresh.	Clear.
2	82	79	S. W. fresh.	Clear. Cloudy. Drizzle.
3	83	79	S. W., S. E.	Clear.
4	85	83	S. W.	Clear. Cloudy. Drizzle.
5	86	84	N. E., S. W.	Clear. Thermom. 92° at 3 P. M.
6	90	83	S. W.	Clear. Thermom. 94° at 12 M. in the shade; 128° exposed to the sun.
7	78	76	N. fresh, S. E.	Clear.
8	79	75	S. E., N. W.	Clear.
9	80	78	N.W.,S.W.variable	Clear.
10	82	78	S. W., S. fresh.	Clear.
11	84	75	S. W., N. W.	Clear. Cloudy. Rain. Fine shower at night, with thunder and lightning.
12	75	72	W., N. W.	Cloudy. Moderate rain. Clear.
13	73	68	N. W. fresh.	Clear.
14	70	76	N. W., S. W.	Clear. Thermom. 58° at daylight. Aurora borealis at night.
15	77	70	N. E., S. E. fresh.	Overcast. Distant thunder and lightning. Drizzle at night.
16	73	76	S. E., S. W.	Cloudy. Large rain P. M. with very vivid lightning, and tremendous peals of thunder.
17	65	68	N. E.	Cloudy. Drizzly.
18	66	68	N. E.	Cloudy.
19	70	71	N. E., N.	Overcast. Hazy.
20	74	77	N. E., S.	Overcast. Clear.
21	80	68	N. W., N.	Clear.
22	70	65	N. W.	Clear. Thermom. 59° at sunrise.
23	73	68	N. E., S. E.	Clear.
24	71	66	N. E., S. E.	Flying clouds. Clear. Thermom. 61° at sunrise.
25	68	65	N. E. fresh.	Cloudy. A gale from N. E. at night with rain. Thermom. 61° at sunrise.
26	66	70	N. E. a gale, S. E.	Cloudy. Hard rain all day and night.
27	68	64	S. W., N. E., N.	Cloudy. Rain A. M. Clear. Wind very fresh from the N.
28	70	63	N. W.	Clear.
29	67	67	N. W., S. W.	Clear. Thermom. 56° at daylight.
30	68	68	N. E., S. E.	Hazy. Clear.
31	71	72	S., S. W.	Clear. A very dense fog A. M.

Total rain during the month - - - - -	6.04 inches.
Mean temperature - - - - - - -	73.53° Fahr.
Decrease of heat from last month - - -	0.81°
Maximum - - - - - - - - -	90°
Minimum - - - - - - - - -	63°
Range of thermometer - - - - -	27°

Hottest day, 6th.—Coldest days, 17th and 28th.

Boston, Mass. August 2d.—The thermometer was at 96° in the shade.

New Orleans, Louisiana, August 4th.—The Mississippi river has risen five inches, and is two feet ten inches lower than at this time last year. The weather is warm and dry.

Newark, N. J. August 7th.—The weather has been excessively warm for the last three days; the thermometer rising part of the time as high as ninety-three to ninety-six degrees.

Norristown, Montgomery County, Penn. August 8th.—Our corn, potatoes, grass, and vegetation is completely parched up, and the cattle are suffering for want of grass and water. Many springs have dried up.

Portsmouth, N. H. August 9th.—The mercury stands at ninety-seven degrees in the shade. A slight shock of an earthquake was felt in this town about seven o'clock last evening.

New Albany, Indiana, August 11th.—Another shock of an earthquake was felt about midnight. It lasted a minute, and was so sensibly felt that the inhabitants were wakened from their slumbers.

Trenton, N. J. August 11th.—We were relieved from the drought experienced in this part of the state for three weeks past, by a fine shower of rain. The spring and mill streams had been very low.

Washington, Geo. August 16th.—A general and mortal fever prevails in this place and surrounding country. In many families there is not one left untouched by disease to administer to another.

New Orleans, Louisiana, August 18th.—The Mississippi is now six feet seven inches below high water mark; with the exception of a few showers the weather has been dry and warm.

August 25th.—An earthquake was felt at Stonington, Connecticut, and at Westerly Norwich, and New London, about half past nine o'clock, just previous to the commencement of the north-east storm.

Philadelphia, Penn. August 28th.—The aurora borealis was visible from nine to eleven o'clock, P. M.

Montreal, August 29th.—For some nights past an uncommon brightness has been visible in the heavens, extending in the form of an arch from east to west, and touching the horizon at either extremity. About ten o'clock it was most visible, and sometimes seemed to emit clear particles of light, which took a direction to the earth, and were similar to very vivid lightning.

The different papers from all parts of the country, continue to be full of descriptions of the luminous appearances lately seen in the heavens.

The malignant fever prevails in Charleston, S. C. New Orleans, Louisiana, and Savannah, Georgia.

Severe and dreadful gales of wind occurred from the middle to the latter end of this month, along the Atlantic coast, and in the West Indies. At St. Bartholomews, Gaudaloupe, Martinique, Antigua, St. Kitts, St. Croix, Porto Rico, and St. Domingo, most of the vessels in port were driven ashore, some wrecked, and great injury done to the plantations.

The storm raged along the coast of North Carolina. Washington and Newbern, N. C. were partly inundated. At Washington the tide rose fifteen feet above ordinary tides. A number of families were taken from their dwellings in boats. At Newbern the destruction of property was very great. Houses were blown down. The gale was severely felt in New York and Baltimore. The wind was mostly from north-east, with heavy rains.

SEPTEMBER, 1827.

DATE.	FAHREN. THERMOM. 10 A. M.	FAHREN. THERMOM. 10 P. M.	WINDS.	WEATHER.
1	75	72	N. W., S. W.	Clear.
2	74	72	S. E., S. W.	Clear. Dense fogs in the morning.
3	78	72	N. E., S. E.	Clear.
4	76	68	N. E., N.	Clear.
5	70	64	N. E.	Clear.
6	69	71	N. W., N.	Clear. Hazy. Thermom. 59° at sunrise.
7	66	61	N. E. fresh.	Cloudy. Clear.
8	62	59	N. E. fresh, N.	Cloudy. Clear. Thermom. 58° at sunrise.
9	65	58	N., N. E.	Clear.
10	68	67	N. W., S. W.	Clear. Thermom. 54° at sunrise.
11	73	69	S. W., W.	Clear.
12	66	58	N. W. fresh.	Clear.
13	66	68	S. W. fresh.	Clear. Thermom. 51° at sunrise, and a dense fog.
14	74	75	S. W. fresh.	Hazy. Clear. Cloudy.
15	77	71	S. W. fresh, N. W.	Clear.
16	68	65	N. W. fresh.	Clear.
17	65	62	N., S. W.	Clear. Thermom. 54° at sunrise.
18	63	66	S. E. fresh, S.	Cloudy. Rain all day. Clear.
19	62	57	N. W. fresh.	Overcast. Flying clouds.
20	62	64	N. W.	Cloudy.
21	64	62	N. W.	Flying clouds.
22	63	58	N. W.	Cloudy. Rain at night.
23	61	58	N. W. fresh.	Cloudy.
24	59	59	N. W.	Clear. Thermom. 52° at daylight.
25	62	65	S. W. fresh.	Hazy. Clear. Thermom. 52° at sunrise.
26	65	54	N. W. very fresh.	Overcast. Flying clouds.
27	58	54	N. W.	Clear. Thermom. 48° at sunrise.
28	59	58	N. E. fresh.	Clear. Overcast. Thermom. 49° at sunrise.
29	58	56	N. fresh.	Hazy. Clear.
30	61	60	N. W., N. E.	Clear. Cloudy.

Total rain during the month - - - - - -	1.07 inches.
Mean temperature - - - - - - -	64.52° Fahr.
Decrease of heat from last month - - -	9.01°
Maximum - - - - - - - - -	78°
Minimum - - - - - - - - -	54°
Range of thermometer - - - - - -	24°

Hottest day, 3d.—Coldest day, 27th.

Laguira, September 2d.—A very severe shock of an earthquake was felt here, and at Caraccas.

Augusta, Geo. Sept. 3d.—Our river is lower than it has been within the memory of any of the witnesses of its present state. The sand bars are naked in some places, for nearly half a mile in length.

Georgetown, S. C. Sept. 8th.—A pretty severe gale commenced here on Friday last. Great injury was done to the cotton, rice and corn. Many fences and trees were blown down.

Boston, Mass. Sept. 8th.—Another brilliant aurora borealis was visible. The moon was unclouded, but her rays were not bright enough to prevent those of the northern light from being quite distinct.

Wilmington, Delaware, Sept. 9th.—The aurora borealis appeared in the northern heavens.

Augusta, Geo. Sept. 12th.—The Savannah river is now so low as to have been forded, a few days since, above the bridge by two boys.

Canandaigua, N. Y. Sept. 27th.—The season in this and some of the adjacent counties has been uncommonly dry.

New Orleans, Louisiana, Sept. 13th.—The Mississippi is falling slowly, and is ten feet five inches below high water mark. The weather is dry, cool, and pleasant.

Quebec, September 17th.—There was frost during last week sufficient to change the colour of the forest leaves, and destroy the potatoe stalks.

Providence, R. I. Sept. 22d.—During the last week the wind blew from the north-east, accompanied with as great a fall of rain as we have ever known within the same period. The streams in the vicinity are very high.

Greensburg, Penn. Sept. 23d.—At night a smart frost was experienced here.

Charleston, S. C. Sept. 24th.—The weather for the week past has been of the most agreeable temperature—neither too hot, nor too cold.

Richmond, Virginia, Sept. 27th.—The weather has been very dry for three or four weeks. James' river is lower than it has been for many years, and many of the mills upon it are suspended or retarded in their operations.

Georgetown, S. C. Sept. 14th.—The crops on Black river have suffered severely from the late heavy rains; the six mile bridge has been carried away. The weather continues remarkably cool for the season.

September 27th.—In consequence of a long continuance of dry weather, the crops of cotton in North Alabama and Tennessee have been in part destroyed.

OCTOBER, 1827.

DAYS.	FAHREN. THERMOM. 10 A. M.	FAHREN. THERMOM. 10 P. M.	WINDS.	WEATHER.
1	63	62	N. E.	Overcast.
2	64	60	N. E.	Cloudy. Small rain at night.
3	64	62	S. W.	Cloudy. Drizzly. Thunder and lightning, P. M.
4	66	61	N. fresh.	Clear.
5	64	65	S. W.	Clear. Hazy.
6	62	54	N. W. fresh.	Clear. Shower at daylight.
7	55	48	N. W.	Clear. Thermom. 44° at daylight—white frost.
8	48	50	N. W.	Clear.
9	62	64	S. E.	Cloudy. Hard rain at night, with a gale from N. E.
10	60	51	N. W.	Cloudy. Rain. Clear.
11	54	52	N. E.	Clear. Cloudy. Frost at daylight.
12	56	54	N. E.	Cloudy. Rain at night.
13	57	54	N., N. W.	Overcast. Clear.
14	58	56	N. E.	Cloudy. Large rain.
15	60	62	S. W.	Clear. Cloudy. Rain.
16	52	50	N. W.	Clear.
17	45	50	S. W.	Clear.
18	45	52	S. W.	Clear.
19	56	55	S. W.	Clear.
20	58	60	S. W.	Clear.
21	63	62	S. W.	Clear. Cloudy.
22	60	60	N. E.	Cloudy. Rain.
23	63	60	S. W. fresh.	Clear.
24	60	59	N. W.	Clear.
25	52	49	N. W.	Clear.
26	50	50	N. W.	Clear. Cloudy. Sprinkle of hail.
27	48	47	N. W.	Clear.
28	59	57	S. W.	Hazy.
29	58	60	S. W.	Clear.
30	68	50	S. W.	Hazy. Rain at night.
31	49	50	N. W.	Clear.

Total rain during the month - - - - - -	6.25 inches.
Mean temperature - - - - - - -	56.33° Fahr.
Decrease of heat from last month - - - -	8.19°
Maximum - - - - - - - - -	68°
Minimum - - - - - - - - -	45°
Range of thermometer - - - - - -	23°

Hottest day, 30th.—Coldest day, 17th.

Easton, Penn. October 9th.—During a thunder storm in the evening, the Episcopal church in this borough was struck by lightning.

Providence, R. I. October 10*th.*—More rain has fallen by 15 per cent. this year, than has fallen for the last forty years.

Mobile, Alabama, October 13*th.*—From the 7th of September until the 9th of October, not a drop of rain fell, and vegetation was almost entirely suspended. We then had a fine shower, the weather turned cool, and on the 10th at night there was a slight frost.

Vermont, October 16*th.*—Snow has already fallen to the depth of a foot upon the White Mountains.

Quebec, October 18*th.*—The wind blew strong from the northward after the rain of the 15th, and several times in the day snow fell. At night it froze pretty hard. Early the next morning the hills to the north of the city were covered with snow. On the 17th at night the snow fell sufficient to cover most of the country around.

Wilksbarre, Penn. October 19*th.*—There has been much rain during the last few days, which has caused a rise in the Susquehanna.

Greensburg, Penn. October 22*d.*—Several flocks of wild geese flew over the town, and on the 24th we had a hail storm, preceded by cold northern winds.

Savannah, Geo. October 23*d.*—The weather is cool and pleasant, and strangers have little to fear in visiting the city.

New York, October 25*th.*—About 2 o'clock the wind suddenly shifted from west to north-west, which blew tremendously hard, accompanied with a light fall of hail. A heavy fall of snow happened between Staten Island and the city.

Washington City, D. C. October 26*th.*—We had a very sligl.t fall of snow.

Richmond, Virginia, October 30*th.*—This is a late autumnal season. The leaves have hung longer on the trees, and have changed the colour of their foliage less than usual. The tomatoes are very little injured; and the cotton plant was still in the bloom.

St. Augustine, Florida, October 31*st.*—The crops of oranges are very abundant this season.

NOVEMBER, 1827.

DAYS.	FAHREN. THERMOM. 10 A. M.	FAHREN. THERMOM. 10 P. M.	WINDS.	WEATHER.
1	49	48	N. W.	Clear.
2	50	49	S. E.	Clear.
3	56	60	S. W.	Cloudy.
4	58	59	S. W.	Cloudy. Small rain. Clear.
5	57	49	N. W.	Clear.
6	50	52	N. E.	Clear. Cloudy. Large rain.
7	54	46	N., N. W.	Cloudy. Rain.
8	54	52	S. W., N. W.	Cloudy. Clear.
9	56	54	N. W.	Clear.
10	54	50	S. W.	Clear.
11	40	46	N. E.	Cloudy.
12	54	60	S. E.	Overcast.
13	49	48	N. W.	Cloudy. Rain. Clear.
14	46	40	N. W. very fresh.	Clear.
15	42	44	N. W.	Clear. Overcast.
16	41	44	N. W.	Clear.
17	43	48	S. W.	Clear.
18	44	43	N. W.	Clear.
19	40	41	N. W.	Cloudy. Clear.
20	40	39	N. W.	Clear.
21	40	37	N. W.	Clear.
22	36	35	W., S. W.	Overcast. Clear.
23	34	33	S. W.	Clear.
24	36	36	S. W.	Clear.
25	40	41	W.	Clear. Overcast.
26	35	34	N. W.	Clear.
27	39	38	N. W.	Clear.
28	38	38	N. W.	Clear.
29	45	46	S. W.	Cloudy. Rain all day.
30	56	50	S. W.	Cloudy. Rain.

Total rain during the month - - - - - -	4.10 inches.
Mean temperature - - - - - - -	45.36 Fahr.
Decrease of heat from last month - - - -	10.97°
Maximum - - - - - - - - -	60°
Minimum - - - - - - - - -	33°
Range of thermometer - - - - - -	27°

Hottest day, 3d.—Coldest day, 23d.

St. Louis, Missouri, November 1st.—We were unexpectedly visited on Monday evening with a fall of snow. During the night it became cold, and ice of considerable thickness was formed. These indications of winter are unusually early.

Chester, Penn. November 6th.—Wild game, (pheasants and partridges,) were never more abundant in our neighbourhood than they are at present.

Albany, New York, Nov. 7th.—Snow began to fall at sunrise, and continued all day, when it was six inches deep.

Hartford, Connecticut, Nov. 8th.—In the night a severe snow storm commenced from the north, and left us about a foot of snow on the level. So great and early a fall of snow is not within the recollection of our oldest citizens. The mail coach from Litchfield to this city was actually stopped by the heavy drifts of snow.

Otsego County, New York, Nov. 10th.—The country generally is covered with snow, and the sleighing good.

New Haven, Connecticut, Nov. 13th.—The north-west storm at night was very severe, and at sea, and along the coast, many lives and much property have been lost.

Boston, Mass. Nov. 14th.—It commenced raining in the morning of the 13th, and continued with great violence till some time in the night. The wind is strong from north-west, and the snow several inches deep.

Washington City, D. C. Nov. 18th.—About twelve o'clock a steady fall of snow commenced, and continued all the afternoon.

Petersburg, Virginia, Nov. 18th.—A considerable fall of snow occurred in the evening, and ice formed in the shade for several days past.

Kingston, New York, Nov. 21st.—We never before experienced such extreme cold weather, so early in the autumn. Some of our farmers have not been enabled to gather and house their corn, potatoes, apples, turnips, pumpkins, &c. until they were covered with snow and frost.

Charleston, S. C. Nov. 21st.—For several weeks past the weather has been dry and warm. On the night of the 19th, the wind changed to the north, and became quite cool. On the morning of the 20th we had a white frost, and in the evening a slight fall of rain and hail.

Washington City, D. C. Nov. 23d.—We have winter here thus early. The ice in the Tiber is an inch thick, and the Potomac is frozen nearly, or quite out to the channel.

Albany, New York, Nov. 23d.—The canal is now closed with ice between this city and Utica. It was navigable the last year until the 9th of December.

Warren, Penn. Nov. 25th.—The snow in this place is about one foot deep.

Harrisburg, Penn. Nov. 26th.—Winter has come upon us with great severity. Much snow has fallen to the north.

New Brunswick, N. J. Nov. 28th.—We are experiencing the coldness and inclemency of mid-winter.

DECEMBER.

Kennebeck, Maine, December 5th.—As the sun rose over a dark cloud, that stretched along the eastern horizon, two splendidly luminous spots, on each side of the sun, and at a distance of fifteen to twenty degrees from it were seen. Their form was that of a short segment of a circle.

Quebec, December 14th.—The thermometer fell to zero this morning. Snow has fallen several times during the last eight days.

Flemington, New Jersey, December 15th.—A perfect and beautiful rainbow was formed between seven and eight o'clock. The weather has been wet this month, and the rivers and brooks are high.

Albany, New York, December 17th.—At night the snow fell six inches deep.

DECEMBER, 1827.

DAYS.	FAHREN. THERMOM. 10 A. M.	FAHREN. THERMOM. 10 P. M.	WINDS.	WEATHER.
1	38	44	S. W.	Clear. Overcast.
2	46	46	S. W.	Clear.
3	45	44	S. W.	Clear.
4	45	50	S. W.	Hazy.
5	50	49	W.	Cloudy. Rain.
6	47	46	E.	Cloudy. Rain.
7	52	49	S. W.	Cloudy. Rain.
8	42	48	N. E.	Cloudy. Rain.
9	52	58	S. W.	Cloudy. Heavy fog.
10	58	57	S. W.	Cloudy. Rain.
11	42	39	W.	Cloudy. Clear.
12	39	38	S. W.	Clear.
13	38	44	N.	Clear.
14	42	50	S. W.	Hazy. Foggy.
15	54	52	S. W.	Cloudy.
16	44	41	N. E.	Cloudy. Rain.
17	42	42	N. E.	Cloudy. Rain.
18	43	42	N. E.	Cloudy. Rain.
19	42	40	N. W.	Cloudy. Clear.
20	39	39	W.	Cloudy.
21	40	39	N. W.	Flying clouds.
22	36	33	E.	Cloudy. Sprinkle of snow. Clear.
23	32	30	N. E.	Clear. Cloudy.
24	36	33	N. E.	Cloudy.
25	38	41	S. W.	Cloudy.
26	43	34	N. W.	Clear.
27	34	33	N. E.	Cloudy. Sleet all day.
28	42	41	S. W., N. W.	Clear.
29	42	40	N. E.	Cloudy.
30	34	40	S. W.	Clear. Cloudy.
31	38	38	S. W.	Clear.

Total rain during the month - - - - -	3.62 inches.
Mean temperature - - - - - - -	42.31° Fahr.
Decrease of heat from last month - - -	3.05°
Maximum - - - - - - - - -	58°
Minimum - - - - - - - - -	30°
Range of thermometer - - - - - -	28°

Hottest day, 10th.—Coldest day, 23d.

Pottsville, Penn. December 1st.—For a few days past we have had heavy rains accompanied with hail, and a great rise in the Schuylkill.

Buffalo, December 4th.—A violent storm of wind and snow set in at night which lasted twenty hours. Snow fell to the depth of eight or ten inches on a level.

Result of all the Meteorological Observations made in the City of Philadelphia and on Tinicum Island in the year 1827.

Months.	Thermometer.						Number of fair days.	Number of cloudy days.	Depth of Rain.	Prevailing Winds.	Prevailing Weather of each Month.
	Mean Temperature.	Maximum.	Minimum.	Range of Thermom.	Hottest days.	Coldest days.					
January	29.6 °	44°	11°	33°	28th.	18th, 20th.	11	20	2 70-100	N. W., S. W.	Cloudy and cold.
Feb.	38.45	54	20	34	21st, 28th.	11th.	12	16	3 60-100	N. W., S. W.	Cloudy, cold, and moderately wet.
March	45.61	62	35	27	27th.	4th, 14th.	17	14	1 36-100	N. W., S. W.	Fair, cool, and dry.
April	56.51	68	43	25	11th, 12th.	1st.	11	19	2 90-100	N. W., S. W.	Cloudy, wet, and unpleasant.
May	61.48	78	46	32	26th, 27th.	1st.	22	9	2 40-100	N. W., S. W.	Very fair, and moderate in rain and temperature.
June	68.20	78	58	20	16th.	3d.	18	12	2 70-100	S. W., N. W.	Moderate and fair.
July	74.34	86	65	21	3d.	24th.	20	11	3 08-100	N. W., S. W.	Fair, agreeable, and moderate.
August	73.53	90	63	27	6th.	17th, 28th.	19	12	6 04-100	S. W., N. E.	Fair, moderate, and very moist.
Sept.	64.52	78	54	24	3d.	27th.	20	10	1 07-100	N. W., S. W.	Very dry, fair, and pleasant.
October	56.33	68	45	23	30th.	17th.	20	11	6 25-100	S. W., N. W.	Fair, very moist, and cool.
Nov.	45.36	60	33	27	3d.	23d.	19	11	4 10-100	N. W., S. W.	Cool, moist, and fair.
Dec.	42.31	58	30	28	10th.	23d.	10	21	3 62-100	S. W., N. E.	Cloudy, cool, and wet.

Prevailing winds of the year, S. W., N. W.—Total rain of the year, 39 82-100 inches.

Number of fair days, 199.—Number of cloudy days, 166.—Hottest month, July.—Coldest month, January.

Greatest range of thermometer occurred in February, 34°.—The mercury was the highest, August 6th, 90°—lowest, January 16th, 11°.

Thunder and lightning occurred in fourteen days.—Mean temperature of the year, 54.64°

The crops of wheat and rye, and indeed all other vegetable productions throughout Pennsylvania, have this year been uncommonly productive. The grain is large and full, and nearly all must have been housed, without sustaining any damage from the weather. Indian corn is perhaps an exception to this general remark. In some counties it suffered much from the heat and drought, but the farmers almost every where rejoice in the midst of a bountiful harvest.

It may be recorded as rather singular, that the winds this year blew from the N. W. in 154 days, as follows:—In January, 16 days—February, 14—March, 18—April, 12—May, 12—June, 11—July, 16—August, 10—September, 15—October, 10—November, 16—and December, 4 days.

ART. XI. *On the Pathological or Abnormal State of the Circulation.* By SAMUEL JACKSON, M. D. Assistant to the Professor of the Institues and Practice of Medicine and Clinical Practice in the University of Pennsylvania.

THE circulation, executed by a complex apparatus diffused throughout the organism, and entering into the mode of being of every organ, is necessarily exposed to suffer frequent and varied derangements. A large proportion of the disorders of the economy attaches to some irregularity in the circulation, either limited to particular organs, or involving, to various extent, the whole of the function. It is not our design here, to enter into the particular details of all the diversities of functional disturbances manifested by the circulation, but merely to indicate the general character of the most important, and the causes of their production.

The circulation may be thrown into an abnormal state, 1st, by the quantity or quality of the circulating nutritive fluid; and 2d, by a pathological condition of the various organs by which it is executed.

Of the Blood as Affecting the Circulation.—Plethora or hyperemia gives a force and energy to the circulation by the excessive stimulation of the blood, and fulness of the vessels, that often passes into a pathological state. The functions of the heart, of the brain, and other organs, are irregularly exercised, hæmorrhages are induced, and apoplexies, and various diseases of repletion and excitation, are attendants on this state.

A reverse condition awakens also pathological phenomena not less numerous. The sudden diminution of the quantity of the blood by hæmorrhage or venesection, produces very considerable disorders in the circulation, and disturbances in the functions of different important organs. After the first impression of exhaustion, a species of reaction ensues, which may easily be, and most probably not unfrequently is, mistaken for excitement. The action of the heart is quickened, palpitations are excited; the pulse is frequent, and exhibits often a deceptive fulness. With this state of the circulation there also frequently exist distressing and confused sounds in the head, throbbing, and other unpleasant sensations, sometimes delirium, with nervous pains in various parts similar to those of inflammation, oppression of the chest, and difficult respiration.

The feebleness of the pulse, even when full, the palor, relaxation, coolness, and moisture of the skin, the sense of exhaustion and sink-

ing experienced by the patient, are circumstances that indicate the true character of this condition, and will guard an attentive observer against the dangerous error of mistaking it for an active inflammatory excitement, which it in part simulates, requiring depletion. Dr. MARSHALL HALL has written professedly on this state, the consequence of undue depletion, but he may be suspected of pushing his favourite doctrine too far, and of seeing exhaustion from depletion where it truly does not exist. The irregularity of the capillary excitement, and distribution of its circulation, such as attends on extreme congestions, in which some organs are oppressed by repletion, and the functions of others are nearly suspended by the diminution of their circulatory actions, exhibit many of the symptoms he attributes to general exhaustion from loss of blood. Some of his cases are of this character.

The deficiency of colouring matter and of fibrin in the blood, is productive of trains of symptoms precisely similar to those proceeding from excessive losses of blood. The absence of these principles is not an unfrequent occurrence in the course of chronic diseases of the digestive and respiratory organs, especially in those of the lymphatic temperament, in protracted intermittents, and occasionally takes place without any assignable cause. This defective state of the red globules is characterized, in addition to the preceding symptoms, by the bombycinous aspect of the skin, the bloodless hue of the mucous tissue of the mouth, tongue, fauces, and of the lips, disposition to anasarcous swellings, extreme lassitude, and incapacity for active exertions.

The brain and nervous system generally appear more especially to suffer, and to experience great disorder of their functions, from sudden deperditions of the sanguineous humour, and defective hematosis, when this last occurs rapidly. Paralysis has frequently been an immediate result of excessive detractions of blood. It is most probable that the disturbances of the circulatory functions induced by excessive losses of blood, are a consequence of the disorder into which the functions of the nervous system are thrown.

It is scarcely possible to explain satisfactorily the immediate cause of this disordered state of the nervous functions. Our ignorance of the nature of the nervous phenomena, and of their production, must render such attempts, if not entirely, at least, for the most part, nugatory. The following rationale is proposed as an approach to a solution of the problem. A particular constitution of organs, which, in a limited range, constitutes their natural or healthy mode of being, is essential to the regular and natural exercise of their functions. A

certain quantity of the sanguine nutritive humour, or oxygenated blood, definite for each organ, is indispensable to this constitution of the organs. This proportion of blood is *organic*, as much a part of the organ as its vascular or parenchymatous structure. All deviations from this proportion are an organic alteration, and necessarily are attended with an aberration of function. Now, the organic or vital actions, on which depend the functional phenomena, consist in molecular movements constantly existing between the molecules of the nutritive humour, or blood, and the solids. The functional phenomena, then, depend on two circumstances—1st, a definite amount of sanguine fluid in each organ; and 2d, a certain activity in the interior molecular movements of the solids and fluids of the organ. The morbid derangements of the functional phenomena connected with the circulatory movements may then be arranged in four categories or classes:—1. When the quantity of the sanguineous fluid is augmented, and the *movements* are *quickened*, the functional phenomena are executed with greater energy, and their disordered action is from excess—sthenia. 2. When the quantity is increased, and the *movements* are *diminished*, the functional phenomena are depressed or deteriorated—congestion. 3. When the amount of the organic fluid is *lessened*, and the movements are *diminished*, the functional phenomena are enfeebled, and fail, or are suspended—asthenia. 4. When the quantity is *deficient*, and the movements are *accelerated*, the functional phenomena are activated, though irregular—are in excess, but are speedily exhausted.

In a healthy or natural state of the organs, excessive losses of blood produce diminution of the organic, and with them, of the functional actions. This is manifested in intellectual and muscular feebleness, diminished sensibility, weakness of the circulation, lessened temperature, cessation of the secretions, and syncope. The phenomena belonging to the third category prevail.

But when an organ entering into the roll of the sympathies is the seat of an active irritation, which is not eradicated by the vascular depletion, the brain and nervous system, as the centre and organ of the sympathies, continue to experience the irradiation of this irritation, are excited, their organic actions, or the molecular movements of their organic fluid and solids, are quickened, and they are placed in the conditions of the fourth category—that is, their functional phenomena are violently disturbed, and rapidly exhausted. The functions of all the organs connected with the nervous system must, consequently, be equally disordered. Hence result the various symptoms, so often deceptive, that succeed to copious depletion, and ex-

cessive losses of fluids, which may be confounded with, and be mistaken for purely sthenic symptoms, or excess of actions attended with force or power, and demanding depletory measures.

This rationale is further illustrated by the fact, that the disturbances of the nervous phenomena, induced by sanguineous losses, are temporarily relieved by a further depletion, which reduces for a short period the cerebral excitement, though, ultimately, they are highly aggravated by the proceeding. It explains also the necessity, in the treatment of this state, of keeping in check the cerebral excitement by the application of cold and sedative means to the head, with occasionally topical depletion from the temples, or behind the ears, and revulsive excitement of the extremities, while, internally, are employed diffusible stimuli, tonics, anodynes, and an analeptic regimen.

Besides the alterations of the blood noticed, others occur, which are not as easily discerned, but may exercise very considerable influence over the circulatory phenomena. In fevers of malignant, or of the adynamic and ataxic character, the blood often is of a much darker hue than in a natural state, being but partially influenced by respiration, and its plasticity is greatly diminished. This anormal condition of the blood, it is not improbable, constitutes one of the principal phenomena of these fevers, imparting to them their peculiar characters.

Of the Vessels as affecting the Circulation.—The vessels, as a conduit between the respiratory capillaries and the pulmonary vascular parenchyma, and the nutritive and secretory capillaries and vascular parenchyma, transmitting the fluids between the two, exercise a very decisive controlling influence on the regularity of the circulation. As has already been shown, they possess no active share in the circulation, but act only from their mechanical construction and physical properties, in both which respects they are most admirably adapted for the purposes of the circulation, being the most perfect hydraulic apparatus.

The inner membrane, which is in reality the true or proper vessel, is a variety of the serous tissue; it forms alone the capillaries, and is continuous with the areolar or vascular parenchyma, the last term of the circulation, in which the fluids move in every direction. From this continuity, inflammation affecting the capillaries and parenchyma, is often extended into the vessels, and in wide-spread inflammations, occupying a large portion of the organism, the inner membrane of the vessels is found to be inflamed throughout the whole vascular system.

It occurs also in congestions of the lungs in severe bronchitis, pneumonitis, and in some cases of scarlatina maligna. From the imperfect performance of respiration, the blood loses its property of exciting the actions of the brain and nervous system generally—and a state of adynamic prostration is induced.

Inflammation of the inner membrane of the vessels, like inflammation of the serous tissues, produces effusion of plastic lymph, sometimes in considerable quantities, diminishing the caliber of the vessels, which is also, in some instances, completely obliterated. This last circumstance is of more frequent occurrence in the veins than the arteries, and occasions serious embarrassment to the circulation, when it occurs in the large venous trunks.

In the arteries the inner membrane, or true vascular coat, is strengthened by an additional coat formed of the elastic fibrous tissue. The toughness and elasticity of this tissue fits it admirably for this purpose; it resists the impulse of the systole of the heart, and, as was previously explained, by its elastic reaction, continues the momentum derived from the contraction of the ventricles. When this coat is, however, the seat of a continued irritation, as it often is, and its nutrition is impaired or perverted, its physical properties become affected. Its elasticity is diminished, it loses its capacity to resist the impulse of the heart, but yields to it, and the diameter of the vessel enlarges at the point where it gives way. When the distention happens to be considerable, a break or fissure takes place, and the external or cellular coat is extended, forming a pouch. This state constitutes the true aneurism of the arteries. The pouch is not exclusively formed of the cellular coat, for this inflaming throws out numerous layers of coagulating lymph, which assist in strengthening the tumour, and prevents, for a considerable period, its final rupture.

Considerable dilatation occurs, at times, throughout the aorta from chronic affection of the fibrous coat lessening its elasticity, though without forming aneurisms. The force of the circulation is then greatly diminished.

The arteries, in some instances, are of a caliber too contracted, and the fibrous coat too unyielding, to give a free passage to the columns of blood pushed through them, especially under the operation of excitement from exercise, or other causes. The resistance the heart experiences in the propulsion of the blood, subjects that organ to frequent derangement of its function, and generally induces, ultimately, its dilatation, or other alteration of structure. In one instance of this kind that fell under my notice in the Alms-house Infir-

mary, which terminated fatally from excessive dilatation of the ventricles, the descending aorta was not larger in diameter than the usual size of the common iliac.

The fibrous coat of the arteries is frequently denaturalized by a deposit of calcareous matter, converting it into an osseous structure. Its elasticity is entirely lost, and the vessel ceases to assist in the support of the circulation, as it can no longer react on the contained column of blood.

The cavity of the arteries is sometimes obliterated, so as to arrest entirely the passage of the blood through them. This circumstance is of more frequent occurrence in the small, than large arteries, though several cases are recorded in which it was presented in the aorta.

The middle coat of the veins is devoid of the elasticity possessed by that of the arteries. It is not necessary to their office, as they are not exposed to the impulsive action of the heart. Like the middle coat of the arteries, it is subject to softening, when it easily ruptures, and to thickening or hypertrophy, when it approaches in some respects to the fibrous tunic of the arteries.

The coats of the veins, from their distensible character, frequently yield to the pressure of the blood accumulated in them; and this circumstance is more certainly occasioned, when the middle coat has sustained a lesion by a vitiation of its nutrition, from irritation, or other cause. The enlargement of the cavities of the veins produced in this manner, is termed varices; and, lately, by Briquet, phlebectasia, of which various species exist. They are analogous to the true aneurism of the arteries. This state is most usual in the superficial veins of the lower extremities, though it has been met with in the veins of most portions of the body. A varicose condition of the veins proves an embarrassment to the local circulation, and gives origin often to serious local affections, ultimately deranging the general health.

The cavities of the veins are found in some instances very much contracted, and even entirely obliterated. This defect may proceed from adhesions of the internal membrane, a consequence of its inflammation, or the coagulation of the blood within the vessel. The circulation of the veins is also sometimes obstructed by the formation of considerable coagula floating loosely in the veins, or having a partial adhesion.

Pus is very commonly found in the veins in the vicinity of inflamed organs; and it is this circumstance, which modern researches would appear to demonstrate in a positive manner, that is productive

of many of those secondary disturbances, which have been idly explained as depending on constitutional irritation, sympathy, and other indefinite causes. It is an occurrence repeatedly verified as succeeding to surgical operations, fractures, and phlebotomy, and as attached to suppurations of the internal organs. It occurs with frequency in acute metritis, succeeding to accouchement, and in the affection of the lying-in termed phlegmasia alba dolens. In many instances it has been remarked, that pus is found, not only in the veins of the diseased structure, but in many other veins, in the parenchyma of the organs, substance of the muscles, and in the articulations. The pus thus distributed in numerous depots is not derived from absorption, at least uniformly. It is secreted by the inner membrane of the veins, into which the irritation of the parenchyma of the organs, with which it is continuous, has extended, and is thence carried along with the circulatory torrent, and disseminated throughout the economy.

Of the Heart as Productive of a Pathological State of the Circulation.—From the importance of the office deputed to the heart in the circulation, every departure from its normal condition, either of structure or action, is productive of more or less disorder of this function. The heart being a mechanical power established to move the blood in masses, mechanically, between the two systems of respiratory and nutritive capillaries and the parenchymatous vascular structure of the organs, is, therefore, essential to the maintenance of their circulation, on which all the vital phenomena immediately depend. Any disability of the heart is, according to its degree, productive, consequently, of disturbance of the circulatory function in its whole extent.

The variety of tissue, the complicated arrangement, and the diversified connexions of the heart with the organs of the economy, expose it to numerous sources of disease, and to frequent disturbance of its functional offices.

The perfect freedom of the heart's action, indispensable to its function in the circulation, is secured by the serous membrane—the pericardium—which envelopes it in a peculiar manner, placing the polished, smooth, and lubricated surfaces of this capsule in contact with each other.

Like other serous membranes, the pericardium is very susceptible of inflammatory irritation. When acute, the extreme sensibility this tissue acquires, produces an agony that nearly suspends the action of the heart, and places the patient in eminent jeopardy. The deterioration of its polished surface by the depositions of layers of plastic

lymph, and the cessation of its lubricating secretion, embarrass likewise the action of the heart, and entail an impairment of its function most generally fatal in its results. This membrane is, also, the seat of a serous effusion producing a morbid collection of fluid—a form of dropsy—interfering so materially with the heart in the exercise of its office, as to prove a fatal affection.

Fibrous tissue derived from the fascia superficialis, as demonstrated by the lamented GODMAN,* is combined with serous tissue in the formation of the pericardium, and renders this capsule liable to rheumatic inflammation, so frequently transferred from the articular fibrous tissues to the heart. This translation most probably is facilitated, and is explained by the connexion pointed out, a connexion more clearly elucidated by Godman, than by any preceding anatomist.

The interior lining membrane of the heart, continuous with that of the vessels, and of the same nature, is subject to the different morbid lesions indicated already as affecting it in the vessels. It is the seat of acute and chronic inflammation, of different secretions, the deposition of plastic lymph, of thickening, softening, ulceration, and induration. The action of the heart, and, consequently, the whole circulation, experience various irregularities when these defective conditions of this tissue exist. The disorders they occasion are more marked and aggravated when the valvular structure of the heart, formed of this membrane, happens to be the location of these affections. The regular play of their movements, which govern the order of the circulation, is then greatly interrupted, and the circulation is thrown into extreme disturbance.

The auriculo-ventricular valves of the left heart, and the coronary valves at the mouth of the aorta, are those most commonly affected. It is rare to find the valves in the right heart deviating from a natural state.

The substance of the heart itself is subject to various pathological modifications. Whether the muscular fibre is affected with acute inflammation, is somewhat doubtful, and it is not yet established that a true carditis does occur. Most cases considered as such, are inflammations of the pericardium, or the internal lining membrane of the heart. Approaching to an inflammatory state, are the sanguine effusions which sometimes take place into the substance of the heart, constituting a true apoplexy of that organ.

In the mode of its *nutrition*, the heart departs, like the other organs, from its natural order. Of this character is the excessive thick-

* Anatomical Investigations, by J. D. Godman, M. D.

ening of its parietes, or *hypertrophia*, without a degeneration of its structure. This condition may prevail in the whole of the heart, or be present only in a portion. The first is a rare circumstance. I have never met with an instance of it, though cases are on record. Most commonly the left ventricle exhibits the hypertrophied state. The right ventricle is seldom the seat of this lesion, and the auricles are still more rarely affected by it. I have seen but a few cases of hypertrophy of the auricles, and then it was the left that manifested this state, and was coincident with hypertrophy of the same ventricle.

Cardiac hypertrophy is a consequence, most generally, of a light sanguine irritation, simply augmenting its nutritive actions, which may be excited in various manners. I have seen hypertrophy repeatedly to succeed rheumatic attacks, which had affected the heart by metastasis. In several instances it followed on pericarditis; chronic irritation of the stomach I have known to be its exciting cause; and in one case, attended with softening both of the heart and aorta, ending in a rupture, mental anxiety, and distress appeared to have been the originating cause.

The reverse state of the heart, or its *atrophia*, occurs, but with less frequency. The walls of the heart then become thinner, and in an extreme degree, the muscular fibres disappear entirely. In a case of sudden death, I found on examination the right ventricle having the appearance and the thickness of the pericardial capsule—it was semitransparent.

The consistency of the cardiac structure undergoes changes from a vitiation of its nutrition. It exhibits at times a morbid hardness or induration, which causes it to sound when struck like thick sole-leather, and to resist the scalpel when cut. It exhibits also various degrees of softening when it acquires unusual flaccidity, and its fibres break down with slight efforts.

The capacity of the cardiac cavities presents also different anomalies which disorder the circulation. The most usual is their *dilatation* or enlargement, and occurs most frequently in the right auricle and ventricle. It affects also the left ventricle and auricle, and some instances are recorded of all the cavities having been found unnaturally enlarged.

Dilatation of the cavities may coexist with any of the preceding conditions of the heart. Thus, it is conjoined with hypertrophy or thickening—the active aneurism of Corvisart—with atrophy or thinning—the passive aneurism of Corvisart—with induration, and with softening.

Dilatation is sometimes restricted to a limited portion of a cavity, and, then, the formation of a pouch or sac of various size opening into the cavity, is a frequent result. This is analogous to the false aneurism of the arteries. I have met with only a single example of this nature. In that case the left ventricle was hypertrophied, having a pouch connected with it nearly of the size of a large hen's egg, the walls of which were also thickened, communicating with the ventricle near the apex. The existence of this pouch was suspected, and announced several months previous to the death of the patient, from the strong pulsation and impulse, detected by the stethoscope, in the left lateral region, about the fourth rib.

A common cause of dilatation is an obstruction offered to the blood in the course of the circulation, which accumulates that fluid in the heart. This sometimes arises from a morbid state of the valvular structure, sometimes from contraction in the caliber of the arteries, and sometimes from congestions in the capillaries. This last is more common and efficient as a cause of dilatation for the right, than the left cavities. From the vicinity of the pulmonary capillaries to the heart, an obstruction to the transmission of the blood through them, is immediately experienced by the right cavities, whose parietes, being feebler than those of the left, yield to the distention they experience. On this account, acute and chronic inflammations of the lungs, of the bronchial mucous membrane, and the congestions and alterations in the pulmonary structure, impeding the passage of the blood, are so frequently attended with affections of the heart, inducing derangements of its structure. Dilatation, however, sometimes occurs from causes which it is not possible to appreciate.

The capacity of the cavities is frequently diminished, to an extent, sometimes, interfering with the regularity of the circulation. This diminution may be concurrent with a natural thickness of the parietes, with their hypertrophy, their atrophy, induration, or softening. It is most common in the ventricles, and is produced at times, especially in the right, by a thickening of the interventricular septum. It also proceeds occasionally from enlargement of the columnæ carneæ. When hypertrophy is unaccompanied with dilatation, and concentres in its progress, the cavity is necessarily contracted.

The actions of the heart are subject to be deranged from irregularities in the nervous centres with which it is in connexion. The influence of the passions is well known, but the disorders induced in the functions of the heart, emanating from the ganglionic system, are very imperfectly appreciated. From this source are produced a great variety of cardiac disorders, many of them highly distressing,

and which ultimately terminate, in some cases, if not relieved, in the production of incurable organic disease of the heart. The cardiac plexus, most probably, is the portion of the nervous organs in which the disease is located, the symptoms existing in the heart being only a functional disturbance.

To this cause are to be attributed some cases of palpitations excited by light moral impressions, by exercise, and which are spontaneously produced at certain times, while, at other periods, the action of the heart is perfectly natural. Some of those cases so loosely designated angina pectoris, in which no organic disease of the heart can be detected, are of the same character. Spasms, which unquestionably affect the heart, originate in diseases of that plexus.

A functional disorder of the heart, respecting which I have several times been consulted, appears to me to depend, also, on an affection of the nervous ganglionic centres connected with this organ. The action of the heart, in one case, suddenly became very feeble, and a species of lypothymia took place, accompanied with a sentiment of dying. In another case, the pulse gradually diminished in sleep, and finally nearly ceased, when the patient awoke in great distress with a similar deathly feeling. In both these cases not the least sign of disease of the heart could be detected by examination.

Of the Capillaries and Vascular Parenchyma, as Affecting Pathologically the Circulation.—The capillaries appear to be formed of the inner membrane, the real vascular membrane of the arteries and veins, and the lymphatics are formed of a tissue precisely similar. This membrane, constituting the vessels, is continuous with a similar membrane existing in the parenchyma of the organs, of which it composes a large portion, arranged by its numerous septa, into a cellular or areolar form.

The vascular, or circulatory system, is not, then, to be regarded as a simple arrangement of vessels, but its principal portion is an immense serous sac or bag, having prolongations or ramifications into the different organs, and divided into innumerable cells or vacuolæ, into which the vessels open—the arteries being efferent, or bringing supplies of blood, the veins and lymphatics being afferent, or returning, the one the coloured, the other the colourless portions of the blood, from the vacuolæ or cells of the vascular parenchyma. This precise arrangement of the vascular system, cannot be positively demonstrated in the general structure of the organs, though an approach to it may be observed in the mucous membranes when prepared and examined with a microscope. In the erectile tissues, as they have been named, such as the penis, clitoris, nymphæ, and nipple, and in the

spleen, especially when examined in the larger animals, as the horse and the elephant, this arrangement of the vascular system is most clearly demonstrated. The diploë of the cranial bones exhibits the same disposition of the vascular system. In these organs the structure is cavernous or spongy, the cells of which are formed by the inner membrane of the vessels, and not by common cellular tissue, as was supposed by many anatomists. The cells of the erectile tissue are, in reality, as Malpighi described them, a species of vascular sinus, or dilatation of the vessels themselves. The papillæ and villi of the mucous membranes, it is ascertained, have an analogous structure. The erectile tissue, or organs, may be regarded as exhibiting, on a magnified scale, the disposition of the vascular arrangement for the circulatory or sanguine nutritive humour in the parenchyma or intimate structure of the organism.

The circulation or movement of the blood in the erectile tissues and organs, is not restricted, it is obvious, to mere vessels. It is effused out of the vessels, properly speaking, into a cavernous, spongy, and cellular structure, whence it returns again into vessels, when its transport to other organs is required, for which purpose the vessels are provided. The movements or circulation of the blood in these tissues, is accomplished, consequently, by a force acting in the tissues themselves, and not foreign to them. When they are excited, an afflux of blood is directed to them, distending their cellular or cavernous structure, and causing the phenomenon of erection. This is analogous to, and is a species of congestion. While the excitement continues, the affluxion persists, and the excess of blood producing the erection is dissipated, or re-assumes the circulatory movement, only when the excitement is abated. Adopting the erectile tissue as the obvious type of the ultimate vascular arrangement, in its circulation is figured the circulation of the parenchyma of the organs generally. The last circulation is thus ascertained to take place in minute capillaries, and in a spongy or cellular structure of extreme tenuity, the cellules in the coloured tissues, probably not exceeding the size of a blood globule, and, in the white tissues, being of a still smaller size.

The foregoing preliminaries were required to understand the nature and the mode of production of the pathological conditions of the capillary and parenchymatous circulation. The capillary and vascular parenchyma contains the larger proportion of the blood, and it is the seat of the molecular movements, constituting the organic or vital actions, and, consequently, is interested, in some of its portions, in almost every pathological condition. Every where continuous and connected, the disturbances of a part, when possessing

any intensity, are felt throughout the whole, deranging the order of the circulatory actions, imparting to them irregular, fluctuating, or undulatory movements, and overthrowing the equilibrium, that, in a normal state, prevails in the distribution of the circulatory humour amongst the organs.

In the healthy or normal state, the excitement of the organs being in every portion of the organism, in an equable ratio, adapted to the structure, properties, and functions of the organs, the capillary and parenchymatous circulation is in a just equipoise. But, when an undue excitement or irritation is developed in an organ or tissue, it becomes the centre of converging and confluent movements of the capillary and parenchymatous circulation, producing an affluxion towards it, and destroying the natural equilibrium in the distribution of the sanguine nutritive and excitative humour. This fluxionary movement possesses various extent, governed by the intensity of the irritation, the ascendency the organ affected holds in the economy, and degree of power in the other portions of the economy capable of resisting the attractive influence of the irritated centre of fluxion. When limited, the phenomena of local inflammations are present, which may be repeated by sympathy in other organs. It is thus experienced, under certain circumstances, extensively in the economy, producing congestions of different intensity, and affecting different organs. The phenomena of irritation, of inflammation, and of congestion, with their consequences, are, then, of the same order, and belong entirely to the capillary and vascular parenchyma, and the capillary and parenchymatous circulation. One feature is common to these morbid states. They are attended with unnatural accumulation of blood where developed, with corresponding diminution in remoter organs, which do not partake of those conditions, the greatest deficiency existing generally in the counterpoints to the greatest excess. Thus, when the irritation and congestion are placed in the cerebral organs, the extremities are cold from the deficiency of their circulation. In the congestions of the internal teguments, the external are pale, cold, and inexcitable. This unhinging of the capillary and parenchymatous circulation, is an essential character of the pathological state. The due adjustment of this circulation to the organs, and the stability of its libration throughout the economy, are the objects to be accomplished by therapeutic and remedial proceedings, either for a restoration to health, or for protection against disease.

The capillary and parenchymatous circulation is endowed with an excessive mobility. The affluxive movements just described, are excited, in particular instances, with extraordinary promptness, and

wide diffusion. It is this circumstance that constitutes *paroxysmal diseases*, whatever may be their phenomena or symptoms, derived from the functions of the organs affected. Simple intermittent and hectic fevers are a light form of this state, excited by feeble irritations, in which the congestive accumulation is slight, and awakens reaction, in the manner hereafter to be noticed. The reaction is a curative process, which dissipates the congestion, and diminishes, sometimes removes entirely, the primitive irritation, and, then, the paroxysm terminates, the circulatory equilibrium being restored, until renewed by the return of the local irritation.

Malignant intermittents are a more aggravated form of the same condition. The disorder of the capillary and parenchymatous circulation is more complete; the interior congestion is excessive, overwhelming the organs that are its seat, prostrating their forces, and incapacitating them, by the loss of their vitality, from producing those irradiations into the organism, constituting reaction; while the other organs, abandoned by their circulating fluid, have their actions alarmingly enfeebled, and reduced to the lowest state of exhaustion.

The transport of the capillary and parenchymatous circulation towards a point of affluxion, is often accomplished in a rapid manner, precipitating the fluids on the organ, the seat of the attractive irritation, disordering its functions, or overwhelming it with a fatal deluge. This is the movement designated by the terms raptus and molimen, by the older writers, and is often accompanied with the effusion or extravasation of blood. When the raptus is directed towards the tegumentary tissues, and is attended with sanguine effusion, it constitutes the various hæmorrhages, but when concentrated on organs having no exterior communications, and the effusion takes place into the common cellular tissue, or interstices of the structure, then are produced the various sanguine apoplexies.

The raptus of affluxion occasions in many instances merely a temporary congestion, disordering the function of the organ; but the irritation which had excited the abnormal accumulation of blood subsiding, probably by the suspension of the organic actions from the congestion itself, the blood resumes its usual course in the circulation, the congestion is dissipated, and the functions resume their natural order. When the brain is the organ the subject of this affluxive raptus, we have excited, if of a mild grade, the phenomena characterizing *hysteria;* or, if of a higher grade, the production of *epilepsy.*

Should the mucous membrane of the bronchial tubes be the seat of this sudden congestive flux, the turgescence that ensues blocks up the caliber of the small bronchi, and the admission of the air into

the air vesicles is interrupted or entirely prevented. Embarrassed respiration, or dyspnœa, immediately ensues as a consequence of this state, and constitutes one of the forms of *asthma*. The same state is not unfrequent in the mucous membrane of the larynx, especially covering the cordæ vocales, stuffing up the rima glottidis by the turgescence induced in the membrane. A croupy respiration and cough are speedily developed, and are supposed to be occasioned by spasm—it has been called spasmodic croup. All the excretory ducts are subject to be affected in a similar manner, and the passage of the fluids they eliminate is arrested. Acute irritation of the urethra will produce so great a turgescence of its mucous membrane, as to prevent entirely the escape of the urine, and a complete suppression is suddenly induced. This state is mistaken for spasm, and the arrest of the urine is attributed to spasmodic stricture. The same occurs in the ureters, and in the ductus choledochus in acute duodenitis, and the symptoms are attributed to the passage of renal calculi, and of gall-stones.

In all congestive and paroxysmal diseases, their essential character consists in this unhinging of the whole capillary and parenchymatous circulation, and its concentration on the organ, the seat of the perturbating irritation. The treatment of these diseases must be made to repose on this basis. Its object will be, 1st, to impart force and stability to the actions of the general capillary and parenchymatous structure and circulation; and, 2d, to diminish or eradicate the local irritation, the first moving power creating the disturbance. If we cannot succeed immediately in the last object, the attainment of the first will be sufficient to arrest the paroxysmal type. This measure is accomplished by the administration of cinchona, or its preparations, of the various tonics, and other means that produce a permanent excitement of the capillary and parenchymatous circulation, or their introduction into the organism by endermic medication, which is to be preferred whenever the stomach is in an irritated state. It is this operation of cinchona that renders it so effectual in all paroxysmal diseases, and which have led some to attribute to it a specific property of anti-periodicity.

Inflammatory irritation, or phlogosis, is located in this same structure, and is a modification of the capillary and parenchymatous circulation. The molecular movements constituting the organic or nutritive actions, are accelerated, or acquire an augmented activity. The vitality of the inflamed part is elevated—its irritability, its sensibility, its temperature are increased. The quantity of circulating or sanguine nutritive humour in the phlogosed part is more abundant than natural, but its accumulation is never sudden, as in congestion,

it occurs more gradually, and may continue, if not too intense, for a considerable period without inducing the suspension of the organic actions, as in congestion. Being a modification of the nutritive or organic actions, it is always productive of some change in the structure or secretions of the organ or tissue in which it occurs.

The disturbances of the circulatory functions in inflammatory irritation, are of a different character from those observed in congestive irritation. From the increase of irritability and sensibility attending it, an inflamed organ becomes a centre of irradiation, whence is transmitted into the organs eminent in the sympathies, the same order of actions—the same mode of being or condition. The heart, from the intimacy of its connexions, so frequently partaking of this state, the inflammations of the viscera, and of most other local inflammations, are productive of an acceleration of the vascular circulation, and generally of increase of its force. In congestion, the vessels being emptied by the disorder of the capillary movements, and by the detention of the blood in the parenchymatous structure, the action of the heart is diminished, and the vascular circulation is enfeebled. Inflammatory irritation when active, is, consequently, seldom confined to a single viscus; a constant disposition exists for its propagation; and most usually, when excited in any viscus, it is transmitted to several others. This circumstance modifies the influence of phlogosis or inflammation over the circulatory movements. The participation of the heart in this state, quickens and enforces the vascular circulation; the coadunition of distinct organs in this condition, multiplies the points of affluxion, counterpoising each other, and preventing the excessive accumulation on one, as occurs in congestive irritation. Inflammatory irritation is thus diffusive in its character, is excitative and perturbing of the organic actions, is not attended, in its acute stage, with a disturbance of the equilibrium of the capillary and parenchymatous circulation, to the same extent, as prevails in congestion. Although the phenomena of congestion do not occur to the same extent, and as rapidly in inflammation, as in simple congestive irritation, it becomes ultimately established when the phlogosis continues in the acute form, and when it affects highly vascular organs or tissues, is productive of the same adverse states of the capillary and parenchymatous circulation in different regions of the organism.

In treating of the pulse, in the preceding Number of this Journal, the manner in which pathological states of the capillary and parenchymatous circulation modified the general vascular circulation was then described, and a repetition is here unnecessary.

ART. XII. *Remarks on the Climate and Diseases of Batavia, and on the Means of guarding against them.* By GEORGE S. BETTNER, M. D. of North Carolina.

THE situation and climate of Batavia, are so well known, that very little is required to be said concerning them. Situated in the latitude of 6° south, Batavia is constantly exposed to the burning influence of an equatorial sun, and the heat would always be excessive, were it not moderated by being in the vicinity of mountains, which, in a clear atmosphere, may be distinctly seen at the distance of thirty or forty miles south of the city. The range of the thermometer is thought to be somewhat under 90°; and it is always warmer during the easterly, than during the westerly monsoon.

The harbour of Batavia being formed by a very deep bay, and encircled in front by a number of small islands, possesses many advantages for the security of the shipping. But the circumstances which contribute to the safety of the vessels, are far from being favourable to the health of their crews.

The islands in front of the harbour, (many of which are used only as cemeteries, and are filled with the bones of unfortunate foreigners,) obstruct in a great measure the free passage of the sea breeze, and together with the depth of the bay contribute to the stillness of the water in the roads, which sometimes appears thick and partly stagnant, imparting at the same time, an unpleasant and unwholesome odour. And when it is recollected that this atmosphere receives still further contributions from the canals of the city, and the surrounding marshes and jungles, it will not be considered a matter of surprise, that so many have sickened and died in this climate.

With regard to the canals in and about Batavia, the general impression is, that they furnish a striking instance of mistaken attachment, in a foreign country, to what we have been accustomed to in our own; and the Dutch have been charged with the folly of cutting their canals with as much freedom under the equator, as they would do in Holland.

Although in a medical point of view, it must be confessed, that the canals contribute materially to the humidity of the atmosphere, yet something must be said in their vindication. The inhabitants are universally in favour of them, and would rather multiply than diminish them. They furnish a free and expeditious means of transportation, and a means pleasant too, in a warm climate, compared with conveyances by means of horses. The canals are, moreover,

far from being stagnant. The Bitenzod river which supplies them, comes from the mountains with considerable velocity, and preserves the water constantly in motion. But the greatest utility of the canals, is derived from their furnishing an abundance of water for the purpose of bathing, whilst many which are not applied to this use, and some too that are, yield an ample supply of excellent water for drinking.

The country around Batavia, along the sea-coast, presents a considerable resemblance to the low land which is seen in approaching our own coast, especially that of the southern states. On each side of the large canal, which receives the smaller ones, and discharges itself into the harbour, are extensive marshes and jungles, presenting much the appearance of the marshes, which are seen more particularly at the embouchures of the rivers in the southern states.

This flat and level condition of the country, does not continue very far; at the distance even of eight or ten miles from Batavia, the land begins to present an undulating surface, and still further, it is diversified with hills and valleys, and at the distance of thirty miles south of Batavia, you approach the mountains and high land which extends through the island, from the noble bluff called Java Head. The influence of the mountain air, over the close and sultry atmosphere of Batavia is very obvious, and it is on this account, that, notwithstanding the heat of the day, the nights are always pleasant and refreshing at Weltervreden, Rysmik, and Panaabang, where the Europeans reside, at the distance of four or five miles from Batavia. The nights, although pleasant and refreshing at those places, are generally sultry and oppressive in Batavia, and in the roads; and this circumstance is unfavourable to those who have to pass their nights on shipboard.

As respects the city of Batavia itself, no European thinks of spending the night there.

These prefatory remarks would seem to be altogether inexcusable with regard to any place less celebrated than Batavia, but in conjunction with others subsequently to be made, they will perhaps be considered admissible, especially with those whose business may lead them to Batavia, and who would wish previously to be possessed of information with regard to its situation, and to be able to estimate in some measure the danger to which their health must be exposed.

The ship Mary, of Philadelphia, to which I was attached as physician, anchored in the roads of Batavia, October 8th, 1828.

It will be seen by the readers of Dr. Johnson's work on Tropical

Climates, that the British squadron, in the year 1800, amongst which there was such great mortality, arrived at Batavia on the 21st day of this same month. The knowledge of this fact was calculated to excite in us some concern, and led us to prepare our minds for the appearance of sickness. Although Batavia, from its situation, cannot be said to have any season that is healthy, yet the changing months, as they are called, that is, October and April, are regarded as the most sickly. From October to April is the rainy season, in which prevails the westerly monsoon. This season is the most dreaded by foreigners, and is perhaps more pernicious to them, particularly seamen, in consequence of their exposure to the alternations of the rain and sun.

But the inhabitants generally suppose the dry season of the easterly monsoon the most dangerous, and think that the excessive heat of the sun, sometimes unabated scarcely by a shower for weeks together, is favourable to the production of fevers.

If, however, there be any difference, the latter, or dry season, is perhaps more frequently called the healthy, and the other the unhealthy season. The first day we anchored at Batavia, a case of fever, but not considered violent, presented itself in the person of the first mate of the ship. His case is as follows.

D. Coupland, first mate, has been complaining for the last two days whilst coming up the straits of Sunda.

Symptoms to-day, *October 8th.* Nausea; epigastrium tender; pain in forehead across the eyes; pulse quick, and somewhat hard; throat sore; bitter taste in mouth; bowels constipated for the last three days; skin dry; tongue furred, yellow in the middle, but clean on the edges; spirits dejected. Ordered, R. Hydrar. submur. gr. xii. in pillulis; oil two hours after; chicken water in the afternoon.

9th. Medicine operated well; has very little pain in the head; tongue nearly the same; feels heavy; rested tolerably well during the night; no bitter taste in mouth; throat not so sore; bowels open. Is directed to-day merely to attend to his diet, and to avoid the sun.

10th. No pain in head; bowels open; skin still dry; tongue more natural, but still furred. Ordered, R. Colomel, gr. ss.; pulv. opii., gr. ss.; M. ft. pill. una q. b. h.

11th. Tongue looks well, almost entirely clean; urine high-coloured, and scalding; bowels open; stools greenish colour; no appetite; feels occasionally fainting spells; complains of debility and thirst; head free of pain. Continues to take the pills, and to attend to his diet.

12th. Feels weak; skin a little moist for the first time. Pills continued. Has no appetite; bowels regular; mouth a little sore. Evening. Gentle perspiration over his body; gums tender. Pills continued yet.

This man became convalescent, and was nearly restored, when a relapse was occasioned by neglect of diet, and his imprudence in eating fruit, which brought on a violent colic. This was relieved by the usual remedies, and his treatment was conducted as before. He got entirely well.

This case was not considered dangerous from the symptoms, and from the circumstance of its having occurred so soon. The pain across the eyes was not so acute as in some of the cases which occurred subsequently, nor was the tenderness of the epigastrium so great. On this account no depletion whatever was thought necessary. The dose of calomel was intended to obviate the constipation, and the pills were afterwards employed with a view to act upon the capillary circulation, the skin being very dry and torpid, and the patient being in the habit of perspiring a great deal. These ends were fully answered.

It may perhaps be worth mentioning, that this first case occurred in a man who was then for the seventh time at Batavia, and having been sick there before, he had vainly made a boast of his security against the effects of the climate.

The next cases which occurred were affections of the bowels.

October 26th. I was called to a seaman named Gates, who, whilst working in the hold, suddenly fainted and fell. He was soon restored to his senses, when he stated that the night previous and during the day, he had been the subject of an active diarrhœa. It was plain therefore that his having fainted was from working in a warm place in his debilitated condition. On examination of his symptoms he had no pain in his head, or at the epigastrium, and his tongue appeared almost natural. This man was put on diet, and was ordered a few powders of prepared chalk and opium, and was able to resume his work on the third day from his attack. This was the only case which came under my notice where astringents were employed or even thought admissible. When the epigastrium and the bowels manifest tenderness, and the tongue is much furred, or is red, astringents will always be pernicious.

Thousands of seamen at Batavia have wrought their own destruction, by unadvisedly using for diarrhœa and dysentery, strong decoctions of the rind of the mangustine and the pompomoose or pomelo, which are the most powerful of all astringents.

Equally pernicious was the plan of Dr. Bancroft and others some years ago, which consisted in giving copious quantities of the Peruvian bark to cure inflammation of the viscera, and these quantities often increased in proportion to the oppressed and languishing condition of the patient. Whilst at Batavia, I was informed of one American ship there several years ago, on board of which this plan was adopted, with the loss of every man who was taken sick, and this number by no means small. Victim after victim was sacrificed, whilst reason and conscience remained undisturbed in their repose under the authority of a name.

Besides the facts in Dr. Johnson's able work detailed against the error of this practice, the accumulated proofs of additional experience will constantly be recorded against it.

The next case which occurred was one of dysentery, in a seaman by the name of Sears. This, as did also all the other cases which I saw of this complaint, commenced in the form of diarrhœa; and it is only when it is neglected, or when it continues for some time, that it assumes the shape of dysentery. Those who are familiar with the appearances post mortem of such as die of dysentery, must recollect that the small as well as the large intestines are implicated in the disease, and that the effects of inflammation and often of ulceration, are visible along the whole alimentary canal. But besides this, the connexion of the dysentery in the East Indies, with the functions of the liver, must never be kept out of view.

This man was treated with small doses of calomel and opium, often repeated, and was restricted to diet. After salivation he became convalescent, but relapsed in consequence of deviation from his diet, and perhaps from the salivation not having been continued sufficiently long.

In speaking of dysentery, Dr. Johnson gives a useful caution, which ought to be kept in mind; which is, that the salivation ought never to be checked too soon. Should it however be carried so far, that ulcers appear on the tongue and mouth, it will be necessary to attend to them, and nothing I found so useful as a solution of the sulphate of copper. Having relapsed, this man had the same treatment repeated, and by his stubbornness and imprudence he continued to tamper with himself until even a fourth relapse. He remained on the sick list for six weeks after we left Batavia, became much emaciated, and was at last only cured by the use of calomel and opium, and an absolute restriction to cungee water and rice for weeks.

No depletion was used in this case; cupping would have been use-

ful on his first attack, but circumstances prevented its being employed.

Soon after the attack of this man, a case of pleurisy presented itself in the person of the carpenter of the ship, who in America had suffered from that disease two or three times.

I did not expect to see that disease at Batavia, where exposure to cold more frequently affects the bowels. I however saw one case of it afterwards at Panaabang, a short distance from Batavia. The practitioners there, who are averse to the use of venesection, treat this disease by leeching, together with liniments or vesication. The carpenter of the ship was bled, and with benefit, for he soon recovered. Although I should not hesitate to use venesection for pleurisy, yet, for reasons afterwards to be stated, I should prefer the use of local depletion in the cases of fever.

We had now been at Batavia about thirty days, and no case of fever had appeared since that of the first mate. Very soon, however, the cook and steward, both blacks, were attacked, and the latter with considerable violence. His eyes appeared turgid and injected; very acute pain across the frontal bones, and peculiarly distressing pain in the epigastric region, attended with prostration of strength, and incessant retching and vomiting. The other case was not so severe. These were the only two cases which occurred whilst we were in the roads of Batavia, and they both recovered. As these two cases so nearly resembled two others which occurred in the Straits of Sunda, after leaving Batavia, as well in the symptoms as in the treatment, it will be sufficient to give some account of the two last, in which the whole will be comprised.

We left Batavia, November 17th, at which time the westerly monsoon had set in, with strong winds and heavy rain. At this season it is always difficult to clear the straits, and weeks are consumed in sailing the distance for which a few days only would be sufficient. The fatigue which a ship's crew have to encounter under such circumstances, labouring under the relaxation and debility produced by their stay in Batavia, is almost sure to occasion sickness. Accordingly, whilst in the straits, the carpenter, (who had now recovered from his pleurisy,) and one of the seamen, were both attacked with fever under similar circumstances, and on the same day. The case of the seaman is as follows.

Peter ——, age about thirty-five, stout and plethoric. Taken sick early in the morning of November 24th; was seized with a severe chill.

Symptoms at 9 o'clock. Severe pain of forehead across the eyes;

pain at stomach and back; vomiting; pulse active, quick, frequent, and strong; bowels were not bound, but had been open on the night of his attack; tongue furred, white, and frothy; face and eyes turgid; vision quite dim; debility very great.

Treatment.—I immediately cupped him freely on the head and on the epigastric and iliac regions; and then administered, ℞. Calomel, gr. xx.; pulv. opii, gr. ss. M. ft. pulv. This did not remain long on his stomach, and was shortly afterwards repeated in the form of bolus; this was likewise rejected. 12 o'clock. Has thrown considerable quantities of greenish-coloured fluid off his stomach; skin hot and dry; frequent slight chills; alternations of heat and cold; says his sensations are very uncomfortable, and he betrays much anxiety of countenance. Ordered now, ℞. Pulv. sodaic. una p. r. n.; cooling applications to his stomach when he experiences no chilly sensations, and to take, ℞. Calomel, gr. i.; pulv. opii, gr. ¼. M. ft. pill. una circa q. b. h. After taking one or two powders, stomach became more composed; a dose of calomel was then given. Night. Bowels well opened early in the evening, and stomach is now entirely quiet. His drink now and during the day, gum water made quite thick. The same drink ordered during the night, and ℞. Calomel, ʒi.; pulv. opii, gr. xv. M. ft. pill. lx. una q. b. h.

25*th*. Feels better; no pain or sickness at stomach; bowels well opened during the night; has still some pain in the head, for which he is ordered again to be cupped. Pills continued, and nothing allowed but gum water. Evening. Better; no pain; free of fever; tongue clean on the edges, slightly furred in the middle.

26*th*. Improving; on diet; takes the pills yet; still free of pain and fever; pulse and skin natural.

27*th*. Diet.

This man continued to improve, and he, as well as the carpenter, entirely recovered. In the case of the seaman, the mercury was not extended to salivation; in that of the carpenter it was. Salivation I should not consider so indispensably necessary in the fevers as in the dysentery. The condition of the skin, however, is the safest guide; and when the capillary action of the surface is fully restored and established, and the other symptoms furnish a corresponding degree of improvement, there cannot be any use in the continuance of the mercury. As the salivation is, however, easily controlled, it will sometimes prove of service by restraining the patient from the use of forbidden and injurious articles of diet. With a pulse, such as described in the case above, the question might be asked, if venesection would not be admissible? In such cases Dr. Johnson has given

the weight of his authority in favour of it, but I felt disposed to place my dependance in local depletion, from the advantage of attacking the disease in the very places where it was seated, and from the consideration of the warmth of the climate, the effects of which are much increased on board of our merchant ships, where the accommodations for the sick are for the most part very imperfect.

It should be borne in mind, that the local depletion, whether by cups or leeches, should be effectually performed; and this measure may be pursued with more firmness in consequence of venesection not being employed. Should the symptoms not give way, the cupping or leeching must be repeated.

I have reason to believe that this is the surest method of preventing those unpleasant symptoms which speedily occur in this fever, such as violent delirium, with an alteration of the pulse, and that description of tongue which is seen in the malignant typhoid fevers.

I have mentioned before, that the dysentery of Batavia, so far as I had an opportunity of noticing, commenced in the form of diarrhœa. A case which occurred of this complaint has not been mentioned.

Henry Maines, seaman, whilst at Batavia, was attacked with diarrhœa, and although he would not declare himself sick, it was evident, from his altered appearance, that he was the subject of some disease. He resisted the friendly admonition to submit to medical treatment, and continued the prey of his disease for six weeks after we left Batavia, until at last, in the performance of his duty, he fell on the deck, declaring his inability to work. In this hopeless condition, his symptoms were those of a violent dysentery, with frequent and painful tormina and tenesmus, the dejections being very small, and consisting of blood and mucus; debility and emaciation great; tongue red; and the skin dry and torpid.

The weakened state of this man would not allow of any depletion. A scruple dose of calomel was given him in the morning, and repeated at noon and at night, without producing any inconvenience, and his bowels were opened the next day with comparative ease. The calomel could not be assisted with oil, in consequence of the weakness of his stomach, and his aversion to that medicine. Pills of calomel were afterwards given, and continued until salivation made its appearance on the third day. At the same time he was directed to apply the following liniment freely to epigastrium and abdomen. ℞. Ung. hydrarg. mit., ʒij.; spt. nit. dul., ℥i.; tr. opii, ʒi.; ol. olivar, ℥ij.; lin. sapon. camph., ℥ij.; M. This man after the salivation felt evidently better; the tormina abated; the stools became at first of a greenish colour mixed with mucus, afterwards they were

dark and fœtid, and at last entirely natural. His diet was mucilaginous, and his cure was promoted by his wearing flannel next to his skin.

An outline has now been presented of the principal cases of sickness which occurred on board the Mary. It will be seen that the treatment pursued, was prompt, and when occasion required, active, and that in all the cases it was successful. As regards the fever of Batavia, the testimony of every one's experience is in favour of the adoption of such a course, and the success of the practitioner, will depend considerably upon the opportunity he has of applying his remedial measures at once. The pathology of the fever, and of the dysentery, are now thoroughly understoood, and the safest plan seems to be, to encounter them with vigour in those parts of the system which they are known to assail. As this is the principal object to be kept in view, all the auxiliary measures which will contribute to its success, will of course be adopted.

It is generally believed that sickness does not attack strangers so soon in the East, as in the West Indies, and that the danger to which health is exposed, is in proportion to the stay in those climates. This fact seems to be well established in regard to Calcutta, Ceylon, and some other places. But in Batavia very little dependance is placed on such a probable immunity, and strangers from their first arrival, generally place themselves on their guard against the attack of sickness.

To be actuated whilst there by great apprehensions of the climate, would be very imprudent; but some persons have been known in consequence of this, to take small portions of calomel every day whilst there, a practice of which Dr. Johnson speaks in his work. It is a favourable circumstance to those who go to Batavia, that they are in some measure prepared for the climate by sailing so much within the tropics in performing the voyage.

The city of Batavia is not, and never can be healthy; and a stranger should only remain in it, during those hours of the day, when it is considered safe. By residing at Weltervreden, or Ryswick, in the country, there will be but little exposure to sickness. If on board the ship, or between the ship and the shore, the danger will be greater, as it is not so healthy in the roads, and there must be exposure in passing from the ship to the landing place, through the harbour and a long canal.

The best time for landing is about 11 o'clock, after the sea breeze sets in.

In the morning, the city of Batavia is generally enveloped in a

fog, and might be said not to be prepared to receive visiters early in the day.

As respects a restriction to diet, it will be found difficult to pursue any measure of this kind, with much uniformity. A reference to the customary mode of living in regard to the use of wine and food, should be made, and this with the exercise of moderation in all things, will generally be found sufficient.

Some captains, who by repeated voyages to Batavia, have acquired much experience of the climate, observe that the seamen on board the ship become much relaxed and debilitated, and more liable to sickness, by the entire use of fresh provisions; and think that the health of their crews is better preserved by giving them salt provisions, two or three times a week, or every other day.

This fact is of some importance, and seems to be founded in reason.

It would be very easy to show, that the sickness and mortality at Batavia, among strangers, are in proportion to the imprudence of their conduct, in neglecting the proper measures of temperance and of diet, and exposing themselves injudiciously to the effects of the climate.

On account of the heat at Batavia, no person, except the natives, thinks of walking any great distance, and it is the universal practice of the Europeans to ride. The heat of the day will not admit of much riding for the sake of recreation, and having passed the day, therefore, either in business or retirement, they sally forth in the refreshing air of the night, to perform their visits, or to search for amusement.

This riding at night, which strangers are tempted to do, is not safe or prudent. The dews of the night, as well as the heat of the sun, should both be avoided, for they are indeed "the pestilence which walketh in darkness, and the destruction which wasteth at noonday."

In a warm climate, like that of Batavia, the utility of bathing will suggest itself to the mind of every one, and a stranger there will be struck with the singular appearance of the Malays, male and female, old and young, who are constantly bathing in the canals from morning till night. A regard to comfort, as well as health, will induce every stranger to attend to this practice.

As a general rule, the European residents at Batavia sustain a much longer life than the native inhabitants, and this may be attributed to their possessing originally greater vigour of constitution, and from their having within reach those comforts and conveniences, which are the best defences against the climate, such as suitable

dwellings, the proper kind of apparel, and the advantage of riding instead of walking.

The Malays and Javanese, on the contrary, have miserable shelters, and except their breech cloth, go entirely naked, and instead of clothes, dress their bodies over with coco-nut oil.

Their diet is remarkably meagre and abstemious, and with the exception of those who are employed as servants in the European houses, they eat no animal food, living entirely upon rice, with fruits and vegetables. Most of the Europeans act upon the other extreme, using the most stimulating viands, high-seasoned curries, and beer, gin, and wine in abundance. "In medio tutissimus." A circumstance not sufficiently attended to by strangers at Batavia, is eating whilst they are heated, a practice which is very injurious. The least exertion is fatiguing and oppressive, and the residents there, previously to dinner, which is their principal meal, and taken after the business of the day is over, are in the habit of resting themselves, dressing and becoming cool, and refreshed before they sit at the table.

An attention to apparel is as useful as that of diet, and the use of cotton shirts and banyans will be found the most suitable and the most pleasant. No one there thinks of wearing linen.

With respect to a person who acts in the capacity of physician on board of a ship, his concern for the health of the crew, will be as great as his anxiety with regard to himself. Much good may be accomplished by him in exercising some inspection over the sailors, who are the most reckless and thoughtless of all beings; and enjoining upon them measures of prudence, in order to avoid sickness; and in case of disease, considerable difficulty will be experienced, and much vigilance required in restraining them to a proper diet.

In warm climates, like that of Batavia, the treatment of ulcers, should they occur, has always been found difficult and troublesome. The same remark is applicable to the treatment of syphilitic affections, and there is perhaps no part of the world where such ravages are committed by the venereal disease as at Batavia. The habits of the people are voluptuous and sensual, and the heat of the climate, which inflames their passions, augments the mischief which the indulgence often entails upon them.

Animals there seem to be equally as much affected as men by this disease, and I have often seen sheep, dogs, as well as horses, (which are never castrated there,) with all the symptoms and suffering of confirmed syphilis. The disease must be brought upon them, by their inability to attend to habits of cleanliness, to which every body in that country is extremely attentive. The Malays and Javanese have

an additional security in the practice of circumcision, to which they all conform, a practice enjoined upon them by their religious faith, and established originally, without doubt, for salutary purposes; and it is curious to see how it is sanctioned by, and interwoven with, nearly all the religions of the east.

ART. XIII. *Case of Perforation of the Stomach by Ulceration.* By Dr. LEVI RAWSON, of Grafton, Mass.

RICHARD GIBBS, an Englishman, a dyer by trade, aged thirty-six years, came to this country in 1823; had enjoyed uninterrupted health till about a year since; was of a hale, robust constitution; temperate in the use of ardent spirits, but rather a large eater; had been a hard labouring man, and lived well.

January 1st, 1830, first called on me for advice; said he had not been so well as usual for several months past; had been troubled with nausea and pain in the left hypochondrium; frequently vomited his food, which was apt to distress him; complained of coldness of his extremities; pain in his right shoulder, and the right side of his neck, face, and head; his bowels were costive and flatulent; stools dark-coloured; appetite fastidious; countenance pallid; pulse small and weak; system generally debilitated. I gave him ten grains of ipecacuanha and twenty of calomel, and ordered spare diet. Next day I saw him, medicine had operated well, and he felt much relieved. As he complained of some pain in his stomach and bowels, I ordered him ten grains of Dover's powder night and morning, a continuance of light diet, and a rhubarb pill every night on going to bed. In a few days he resumed his work, but either from irregularity of diet, or from taking cold, he was frequently during the winter, for a few days at a time, unable to work. He kept along in this way, working a few days, then being sick a few, till about the middle of February, when he was prevailed on to leave off labouring entirely, till he had obtained his usual health and strength. By the use occasionally of a few grains of ipecacuanha, a laxative pill, and small doses of Dover's powder, he had to all appearance, by the first of April, regained his former health, and he again commenced his labour—every symptom of disease had left him, except an unusual coldness of his feet and calf of his legs—he would frequently complain of the coldness of them as being almost insufferable when they felt to me extremely warm.

14th of May I saw him; said he had taken cold the day before; felt sick at stomach; fæces dark-coloured; bowels flatulent; wished for a little ipecacuanha to take at night. The next day he felt better.

May 22d, 5 o'clock, A. M. I was sent for in haste to see him; was told he was in a fit. This morning he went to his work as well as usual; while he was raking a vat he was taken with a severe pain in the epigastrium and right hypochondrium, which soon extended to the pubic region. He fell beside the vat, but in a few minutes he recovered so as to be able to walk to the store, a distance of ten rods. He called for some brandy, and drank about two-thirds of a glass. Almost as soon as the brandy was down he fell upon his face on the floor in violent pain, and said he could not live long unless he got easier. In this situation I found him; countenance pallid and indicative of great distress; pulse small and weak; universally cold; abdomen very tender, rigid, hard, and drawn in; short breath; nausea; great pain all over the abdomen, but greatest in the pubic region; pain in his right shoulder; spasms of the muscles of the right side of his neck and face. He said if the pain came back to his stomach it would kill him; put him in great pain to be moved; could not be turned towards his right side. I gave him three ounces of castor oil and some warm drinks; had him carried to his dwelling-house, distant twenty rods, put into warm blankets, and hot bricks applied to his feet and legs. Vomited some of his drinks and oil. Gave him two grains of opium and twenty of calomel; ordered stimulating enemata; four were given without bringing any thing away; put him into a warm bath; staid in twenty-five minutes; easier while in, but complained of great weight in the pubic region. Nothing passed his bowels. Put him into warm dry blankets again; bled him sixteen ounces; blood sizy. Ordered woollen cloths rung out in hot water to his bowels, and repeated the injections. 12 o'clock, M. Nothing had passed his bowels; the injections came away without bringing any thing with them; every symptom aggravated; easiest in an erect posture. From a review of the symptoms, the operation of the medicine, as well as the violence and obstinacy of the case, I now was convinced there must be a rupture either of the stomach or bowels. I told his friends and the bystanders my views of his case, and informed them, that, if I were right in my diagnosis, his case was inevitably fatal. They wished me to persevere, saying it might not be so bad as I apprehended, and if it were he could but die. I shall not give the treatment any further, suffice it to say, that I considered if he ever were or could be relieved, it must be by procuring a free passage through the primæ viæ; to this end were all the means usual directed; I had recourse to all the means usually tried in violent cases of colic. About 4 o'clock, P. M. some of the injections came away with fæces and considerable wind, which gave him a little ease for a few minutes. He slept a little in an erect posture, but he soon grew

worse, vomited some of his drinks, extremities became cold, pulse fluttered, strength failed, and he expired at 8 o'clock, A. M. on the 23d of May, twenty-seven hours from the time he was taken.

I examined him twenty-six hours after death, assisted by Dr. TENNEY, of Sutton, and Mr. VUILE, a medical student. Abdomen a little distended, tense, and the hypogastric region discoloured. On opening the abdomen we found the contents of the stomach in this cavity, surrounding the abdominal viscera; the bowels were considerably distended with wind and the injections: there was a general inflammation of the peritoneum, bowels, and every other part with which the contents of the stomach had come in contact, but the inflammation was greatest in the hypogastric region. On examining the stomach, about midway between the cardia and pylorus, on the anterior surface, near the edge of the lesser circle, we found a perfectly round hole, seven-eighths of an inch in diameter, resembling a hole bored with a tapering auger from within outward; its surface was of a dark colour. The parietes of the stomach, about fifteen lines round the perforation, was considerably thickened and hardened; the mucous membrane appeared healthy up to the edge of the perforation; there was an adventitious membrane by which, (as it appeared,) the stomach had adhered to the under surface of the lesser lobe of the liver, and to which in part we found it adhering—the adhesion was not very firm. Having preserved the stomach I have not cut into its thickened part; wishing to keep it entire. On the under side of the stomach, opposite to the former, there was a commencing perforation of the same size as the other, and perfectly resembling it—it had partially penetrated through the coats of the stomach. The parietes of the stomach round the latter were not so much thickened as round the other; and the peritoneal coat about an inch round it, was inflamed.

The perforation of this stomach must have been caused by ulceration, which commenced in the mucous membrane, and must have been of several months standing; but the adhesion of the stomach to the liver, which probably took place previous to the perforation, prevented its contents escaping so long as it remained entirely adherent. The edge of the kettle over which he was leaning while raking the vat when he was taken, came against the stomach, and ruptured the adhesion, and the stomach being pressed, some of its contents immediately escaped into the cavity of the abdomen.

Grafton, Mass. June 1st, 1830.

REVIEWS.

ART. XIV. *Memoir on the Treatment of Venereal Diseases without Mercury, employed at the Military Hospital of the Val-de-Grace.* Translated from the French of H. M. J. DESRUELLES, M. D. &c. &c. *To which is added, Observations on the Treatment of the Venereal Disease without Mercury.* By G. J. GUTHRIE, Esq. Deputy Inspector of Hospitals, Lecturer on Surgery, &c. *And Various Documents showing the Results of this Mode of Treatment in Great Britain, France, Germany, and America.* Philadelphia, Carey & Lea, 1830, pp. 217, 8vo.

Observations on the Pathology of Venereal Affections. By BENJAMIN TRAVERS, F. R. S. and Senior Surgeon to St. Thomas's Hospital. London, 1830, pp. 75, 8vo.

THERE is no class of diseases to which a deeper interest is attached, or more attention has been devoted, than to the affections engendered by the promiscuous intercourse of the sexes; and to this distinction they are fully entitled, by their frequency, their destructive ravages, the obscurity in which their history is involved, and the diversity of sentiment entertained respecting their phenomena and mode of treatment.

The most discordant hypotheses have been advanced as to the origin of syphilis; by some writers it is considered as an entirely new disease—others give it an astrological origin—it has been ascribed to humidity of the air, in consequence of inundations of the Tiber, Rhine, and Po—to the intercourse of a common woman with a leprous knight—to the connexion of numerous soldiers with a woman affected by a malignant ulcer of the uterus—to the Spanish soldiers poisoning the wells, and bribing the Italian bakers to adulterate the bread with lime—to the use of wine tainted with the blood of leprous patients—to importation from America by Christopher Columbus, &c. These various opinions have been investigated with indefatigable labour and zeal in recent times, and though their falsity has been most satisfactorily established, the precise origin of the disease remains still to be determined.

If the opinion which is at present gaining ground, that it may be spontaneously generated, be correct, the existence of the dis-

ease from the earliest periods would seem highly probable, and many quotations might be adduced from ancient writings in sustentation of this belief. It is not our purpose here, however, to enter into the history of syphilis; those who feel any curiosity on the subject, we refer to the works of Astruc, Sprengel, Huber, Cabanis, Handshuch, Bacot, Titley, &c. We prefer appropriating the few pages we have to spare to the consideration of the phenomena and treatment of the disease.

In the interesting review of the work of M. Richond des Brus in the second and third numbers of this Journal, it having been shown, we think satisfactorily, that the belief, so long prevalent, of the existence of a specific venereal virus has no foundation in truth, we shall not here broach the subject, but confine ourselves to the consideration of the manner in which the disease may be spontaneously generated—the identity of the gonorrhœal and syphilitic virus, and the comparative merits of the mercurial and non-mercurial methods of treatment.

"The spontaneous development, without previous contagion, of syphilitic symptoms," says M. Desruelles, "by the influence of certain exciting causes, the manner of contagion of venereal diseases, their characteristic symptoms, their termination and cure accomplished by antiphlogistics, plainly show that these diseases are the result of irritation; to deny this proposition would be to object to the most palpable evidence, and to disavow the most positive facts. Let us even consider this irritation as special, a point impossible to prove, let us imagine it in the lymphatic system, or in the capillary blood-vessels, and it is not the less true, that irritation is the fundamental characteristic of all venereal symptoms. Then, since these are the result of irritation, the theory of these diseases should in no way differ from the general theory of inflammatory affections. Whence it follows, that in order to form a correct idea of the contagion, of the appearance, progress, termination, and mode of curing these diseases, we must observe what occurs in the system, previous to, and during the inflammation of an organ; we must follow the progress of this inflammation, and become acquainted with all the circumstances favourable or opposed to the cure."

Let us then consider the healthy condition, and trace the progress of irritation in the parts which are the seat of primary venereal affections. The lining membrane of the male urethra and female vagina, in a healthy state, secrete a bland mucus—when these tissues become inflamed from any cause, their secretion is increased in quantity; if the irritation be kept up, this secretion becomes altered in quality—it assumes a puriform and sometimes an acrid character. A purulent discharge from these parts thus recurs, not unfrequently, independent of sexual intercourse, the habitual mucous secretion being readily converted into a puriform one by acrid injections or mechanical irritations.

"The vaginal mucus of a maiden woman," says Mr. Travers, "may be converted from a transparent albumeno-aqueous fluid into one resembling pus in all its sensible qualities, by the supervention of inflammation, from whatever cause, upon the vaginal follicles and membranes."

We have seen this purulent secretion similar in all its sensible properties to the discharge in mild gonorrhœa, in infants a few weeks old, and in children under four years of age, where no suspicion of infection could be entertained.

Attempts to violate female children, frequently produce a copious purulent secretion from the vagina, and the suspicion of gonorrhœa being communicated, has been shown to be erroneous by a careful inspection of the offending party, who has been found free from disease.

It is well known, that a woman affected with the inflammatory leucorrhœa, so often attending advanced pregnancy, sometimes communicates a discharge to her husband, "the case being not so rare in reputable classes of society," observes Mr. Travers, "as to render the fact doubtful to experienced surgeons."

"If then," he adds, "the product of inflammation, induced by chemical or mechanical stimuli, or undue determination of blood to the secreting surface, is capable of communicating the inflammatory irritation by contact; this simple origin of the disease is sufficient to show that the affection termed 'gonorrhœa,' is not necessarily to be referred to any specific quality of the matter. The various degrees of severity which it assumes, indicate only the stage and extent of the inflammation, which, wherever the natural susceptibility exists, is excited by the introduction of purulent matter."

That the inflammation is not regulated by the condition of the matter, but by the individual's susceptibility, is further shown by the fact, "that a mild clap sometimes communicates a virulent one, and vicê versâ, that a rank clap gives a mild one, and often none at all." Some persons are so remarkably susceptible of the disease as scarcely ever to be long free from it, others equally exposed, escape altogether, or having had it repeatedly, become insusceptible.

"A woman," Mr. Travers observes, "is not unfrequently the medium or passive communicant of the disease, not being herself the subject of it; as when she cohabits at a short interval with a diseased and a sound party: and that a man often discovers gonorrhœa in a few hours after connexion with a clean woman, having some days before communicated with a stranger. A person so situated charges the last party, who is in fact innocent, and remains uninjured, with the mischief. These cases are not very uncommon. I have known a married man, who had an illicit intercourse, finding himself clapped, and well knowing the chastity of his wife, indignant at his mistress's infidelity; upon which the accused party, deeply hurt at the imputation, has demanded to undergo a professional scrutiny, and has thus cleared herself of the charge. So

far as examination can be relied upon, it has established her soundness.* Now, the man having intercourse with his wife and his mistress, and with these alone, it follows, that he had become inflamed with the co-operation of his mistress upon the leucorrhœal secretion of his wife, whose sickliness had been his apology, '*in foro conscientiæ*,' for dividing his attentions; and further, that he had not communicated the disease to his mistress.

It thus seems clearly established, that the temperament and constitutional susceptibility of the receiver, have a marked influence on the event of infection or non-infection—that the local sensibility and local sympathy of individuals is very various—that a female may convey without participating the disease, and that the excitement of coition may evolve the disease, though the vagina, which seems to have been the fomes of contagion, is uninfected.

Though the violence of the inflammation, as we have just shown, usually depends upon the constitution of the person infected, rather than upon the condition of the matter, it must be admitted, that the latter also sometimes exerts an influence, but it can readily be shown that the most virulent secretion may be spontaneously generated.

Dr. Falck, in a treatise on the venereal disease, published many years ago, observes, it must be confessed in no very choice and delicate language—

"I need not mention the many disagreeable consequences attending an uncleanly woman, and I believe few will contradict, that a common whore is generally so. All women are subject more or less to the fluor albus; but prostitutes most so. Now, need we wonder, that in the time when such a discharge is upon her, and copulated by a variety of men, some larger and some more tedious, or violent than others, that the vagina should become inflamed, the lacunæ strained, and the mucous oozing out from them, together with a pussy discharge of the fluor albus, become sharp and acrimonious; and is this not enough to generate a venereal virus?" He adds "it is a custom too frequent amongst honest tars, to go in parties to a prostitute, (particularly in places where there are but few of them,) to have a bit of fresh meat as they term it. Jack will next come to the doctor, and damn the whore's eyes and limbs, that she has given him the glim: but cant think as how Frank and Tom should escape, as they both boarded her before him. In like manner, when a siren is let loose among a parcel of good stomachs, either on board a man of war or in a camp; though she at first appears ever so dainty and clean a bit, she must soon prove a fire-ship. This has come under my observation frequently, and I am persuaded that surgeons who have had much practice in that disease,

* "If it be said, that in such a case an imposition may have been practised, I reply, that the appearances of inflammation cannot escape an attentive observer, though the discharge be slight; and, secondly, that the circumstance of a morbid leucorrhœal discharge in the female being on every connexion a source of irritation to the male organ, is of frequent occurrence."

must, (if they will lay all prejudice and conjecture aside,) have met instances from whence they could not but draw conclusions of the same nature."

In a subsequent portion of his work he observes—

"I have advanced that promiscuous copulation generates the venereal disease; this I not only firmly believe to be true, but think I shall be capable to prove it so. Suppose a common whore catches a man with whom she drinks and lies; coition is probably repeated, and for the hire she receives is induced to exert herself; and perhaps, from a forced wantonness in the action thereof, she ejaculates, and exhausts all the pleasing sensations it may afford her. If she retired to rest after this in order to recruit, she might certainly repeat the practice; and whether it was with the same gallant, or any other, could not have any ill consequence as to an infection: but we will suppose, (as is frequently the case,) her lustful prey leaves her as soon as his appetite is satiated, and she immediately catches another, equally fresh and lustful as the former, with whom, for the sake of what she can get, she repeats the debaucherous exercises, though not without a disagreeableness to her sensation: by this time she will become sensibly sore, as the nymphæ, the carunculæ myrtiformes, and the rugæ within the vagina, are galled by the repeated frictions, but in particular the clitoris, which has been strained by this excess, from whence the ligamenta rotunda, and consequently the uterus has been set in a violent agitation, by which all the organs have been greatly stimulated and injured.

"If she stops here it might pass, particularly if she be not an abandoned veteran; but this is seldom the case if any thing further offers; for by this time we may venture to pronounce her intoxicated with liquor; and that, with the irritation from the excessive venery, begins to operate as a stimulus for more lasciviousness; probably she meets with a set of debauchees with whom she spends the remaining night in drinking, riot, and the grossest licentiousness.

"Behold now the next day this emaciated creature; universal fatigue, pain, and a guilty conscience, make her curse her very existence. But in particular, concerning our inquiries, the genital parts are swelled and inflamed; this soreness is not only in the pudendum, but is even within the uterus itself, from whence will flow a sharp, pussy, and stinking matter in abundance; this is not all; the bawd, under whose wings she is, 'will have no idle hussy in her house —these are but trifles; and that she'll like this sport better when she becomes more used to it,' &c. by which comfort, together with a glass of gin, she is encouraged for further engagements, and spirited up to emulation, not to be outdone by her sisters in iniquity.

"The reader, I apprehend, will ask, whether this woman is now infected with a venereal virus? I don't know, but this I will venture to affirm, that whoever copulates with her while she is thus situated, will find the effects of it, and lay a foundation for as good and substantial a pox as the best ever imported from the West Indies by Columbus."*

It will hardly be necessary to offer an apology for this long quotation from a writer whose work appears to be but little known, since

* A Treatise on the Venereal Disease, &c. By N. D. Falck, M. D. London, 1774.

it proves so satisfactorily not only that an acrid virus may be spontaneously generated, which, when coming in contact with a mucous membrane, will excite in it irritation and a puriform discharge, or when applied to a portion of the skin where the cuticle is abraded or very thin, may produce inflammation and ulceration—but also that this important fact was long ago known. The principal objection that has been urged against this view of the subject, is that the discharge in gonorrhœa and the ulcer in syphilis have peculiar characters. No one has yet, however, succeeded in pointing out the distinguishing characters of the gonorrhœal discharge, and the signs by which it was formerly so confidently asserted that the genuine syphilitic ulcer could be distinguished, have recently been indisputably shown to depend upon the structure of the part and other causes, and not upon any peculiarity in the agent producing it.

"When we compare," says M. Desruelles, "venereal ulcers of the genitals with those proceeding from other causes than syphilis, it is impossible to distinguish the former from the latter by any remarkable appearance, especially when they have existed some time. I have seen ulcerations produced by burning tinder, cantharides, caustics, and even by a piece of lint left for some time between the glans and the prepuce, present at the expiration of eight or ten days every appearance of venereal ulcers. The similarity was so close, that several Parisian physicians to whom I showed them, took them for venereal ulcers, and we never should have been undeceived, had not the patients themselves confessed the deception they had practised on us."

In fact, if an ulcer be produced artificially in any of the erectile tissues, and it be powerfully irritated, its basis will become hard, its edges callous, the bottom will appear excavated and grayish, exhibiting in short all the characters of a true Hunterian chancre. We have seen within the last few months two cases of ulcer on the lips of females presenting all the appearances above described, and caused by applications of irritating and caustic articles and relaxing poultices to common chopped lip.

If it should be said that we have only proved that a gonorrhœal and not a syphilitic virus may be spontaneously generated, we answer, that the identity of these two diseases was long ago proved by the decisive experiments of John Hunter, and though it has been subsequently denied, it is solely on hypothetical grounds. If the morbid secretion from an inflamed vagina be applied to a mucous membrane, it produces, as we have already said, irritation, whence follows an increased, and if the irritation is continued, a morbid secretion—but if applied to a delicate non-secreting portion of the body, or where the skin is removed, inflammation is excited, which terminates, as severe inflammation frequently does in these parts, in

must, (if they will lay all prejudice and conjecture aside,) have met instances from whence they could not but draw conclusions of the same nature."

In a subsequent portion of his work he observes—

"I have advanced that promiscuous copulation generates the venereal disease; this I not only firmly believe to be true, but think I shall be capable to prove it so. Suppose a common whore catches a man with whom she drinks and lies; coition is probably repeated, and for the hire she receives is induced to exert herself; and perhaps, from a forced wantonness in the action thereof, she ejaculates, and exhausts all the pleasing sensations it may afford her. If she retired to rest after this in order to recruit, she might certainly repeat the practice; and whether it was with the same gallant, or any other, could not have any ill consequence as to an infection: but we will suppose, (as is frequently the case,) her lustful prey leaves her as soon as his appetite is satiated, and she immediately catches another, equally fresh and lustful as the former, with whom, for the sake of what she can get, she repeats the debaucherous exercises, though not without a disagreeableness to her sensation: by this time she will become sensibly sore, as the nymphæ, the carunculæ myrtiformes, and the rugæ within the vagina, are galled by the repeated frictions, but in particular the clitoris, which has been strained by this excess, from whence the ligamenta rotunda, and consequently the uterus has been set in a violent agitation, by which all the organs have been greatly stimulated and injured.

"If she stops here it might pass, particularly if she be not an abandoned veteran; but this is seldom the case if any thing further offers; for by this time we may venture to pronounce her intoxicated with liquor; and that, with the irritation from the excessive venery, begins to operate as a stimulus for more lasciviousness; probably she meets with a set of debauchees with whom she spends the remaining night in drinking, riot, and the grossest licentiousness.

"Behold now the next day this emaciated creature; universal fatigue, pain, and a guilty conscience, make her curse her very existence. But in particular, concerning our inquiries, the genital parts are swelled and inflamed; this soreness is not only in the pudendum, but is even within the uterus itself, from whence will flow a sharp, pussy, and stinking matter in abundance; this is not all; the bawd, under whose wings she is, 'will have no idle hussy in her house —these are but trifles; and that she'll like this sport better when she becomes more used to it,' &c. by which comfort, together with a glass of gin, she is encouraged for further engagements, and spirited up to emulation, not to be outdone by her sisters in iniquity.

"The reader, I apprehend, will ask, whether this woman is now infected with a venereal virus? I don't know, but this I will venture to affirm, that whoever copulates with her while she is thus situated, will find the effects of it, and lay a foundation for as good and substantial a pox as the best ever imported from the West Indies by Columbus."*

It will hardly be necessary to offer an apology for this long quotation from a writer whose work appears to be but little known, since

* A Treatise on the Venereal Disease, &c. By N. D. Falck, M. D. London, 1774.

it proves so satisfactorily not only that an acrid virus may be spontaneously generated, which, when coming in contact with a mucous membrane, will excite in it irritation and a puriform discharge, or when applied to a portion of the skin where the cuticle is abraded or very thin, may produce inflammation and ulceration—but also that this important fact was long ago known. The principal objection that has been urged against this view of the subject, is that the discharge in gonorrhœa and the ulcer in syphilis have peculiar characters. No one has yet, however, succeeded in pointing out the distinguishing characters of the gonorrhœal discharge, and the signs by which it was formerly so confidently asserted that the genuine syphilitic ulcer could be distinguished, have recently been indisputably shown to depend upon the structure of the part and other causes, and not upon any peculiarity in the agent producing it.

"When we compare," says M. Desruelles, "venereal ulcers of the genitals with those proceeding from other causes than syphilis, it is impossible to distinguish the former from the latter by any remarkable appearance, especially when they have existed some time. I have seen ulcerations produced by burning tinder, cantharides, caustics, and even by a piece of lint left for some time between the glans and the prepuce, present at the expiration of eight or ten days every appearance of venereal ulcers. The similarity was so close, that several Parisian physicians to whom I showed them, took them for venereal ulcers, and we never should have been undeceived, had not the patients themselves confessed the deception they had practised on us."

In fact, if an ulcer be produced artificially in any of the erectile tissues, and it be powerfully irritated, its basis will become hard, its edges callous, the bottom will appear excavated and grayish, exhibiting in short all the characters of a true Hunterian chancre. We have seen within the last few months two cases of ulcer on the lips of females presenting all the appearances above described, and caused by applications of irritating and caustic articles and relaxing poultices to common chopped lip.

If it should be said that we have only proved that a gonorrhœal and not a syphilitic virus may be spontaneously generated, we answer, that the identity of these two diseases was long ago proved by the decisive experiments of John Hunter, and though it has been subsequently denied, it is solely on hypothetical grounds. If the morbid secretion from an inflamed vagina be applied to a mucous membrane, it produces, as we have already said, irritation, whence follows an increased, and if the irritation is continued, a morbid secretion—but if applied to a delicate non-secreting portion of the body, or where the skin is removed, inflammation is excited, which terminates, as severe inflammation frequently does in these parts, in

must, (if they will lay all prejudice and conjecture aside,) have met instances from whence they could not but draw conclusions of the same nature."

In a subsequent portion of his work he observes—

"I have advanced that promiscuous copulation generates the venereal disease; this I not only firmly believe to be true, but think I shall be capable to prove it so. Suppose a common whore catches a man with whom she drinks and lies; coition is probably repeated, and for the hire she receives is induced to exert herself; and perhaps, from a forced wantonness in the action thereof, she ejaculates, and exhausts all the pleasing sensations it may afford her. If she retired to rest after this in order to recruit, she might certainly repeat the practice; and whether it was with the same gallant, or any other, could not have any ill consequence as to an infection: but we will suppose, (as is frequently the case,) her lustful prey leaves her as soon as his appetite is satiated, and she immediately catches another, equally fresh and lustful as the former, with whom, for the sake of what she can get, she repeats the debaucherous exercises, though not without a disagreeableness to her sensation: by this time she will become sensibly sore, as the nymphæ, the caruncule myrtiformes, and the rugæ within the vagina, are galled by the repeated frictions, but in particular the clitoris, which has been strained by this excess, from whence the ligamenta rotunda, and consequently the uterus has been set in a violent agitation, by which all the organs have been greatly stimulated and injured.

"If she stops here it might pass, particularly if she be not an abandoned veteran; but this is seldom the case if any thing further offers; for by this time we may venture to pronounce her intoxicated with liquor; and that, with the irritation from the excessive venery, begins to operate as a stimulus for more lasciviousness; probably she meets with a set of debauchees with whom she spends the remaining night in drinking, riot, and the grossest licentiousness.

"Behold now the next day this emaciated creature; universal fatigue, pain, and a guilty conscience, make her curse her very existence. But in particular, concerning our inquiries, the genital parts are swelled and inflamed; this soreness is not only in the pudendum, but is even within the uterus itself, from whence will flow a sharp, pussy, and stinking matter in abundance; this is not all; the bawd, under whose wings she is, 'will have no idle hussy in her house —these are but trifles; and that she'll like this sport better when she becomes more used to it,' &c. by which comfort, together with a glass of gin, she is encouraged for further engagements, and spirited up to emulation, not to be outdone by her sisters in iniquity.

"The reader, I apprehend, will ask, whether this woman is now infected with a venereal virus? I don't know, but this I will venture to affirm, that whoever copulates with her while she is thus situated, will find the effects of it, and lay a foundation for as good and substantial a pox as the best ever imported from the West Indies by Columbus."*

It will hardly be necessary to offer an apology for this long quotation from a writer whose work appears to be but little known, since

* A Treatise on the Venereal Disease, &c. By N. D. Falck, M. D. London, 1774.

it proves so satisfactorily not only that an acrid virus may be spontaneously generated, which, when coming in contact with a mucous membrane, will excite in it irritation and a puriform discharge, or when applied to a portion of the skin where the cuticle is abraded or very thin, may produce inflammation and ulceration—but also that this important fact was long ago known. The principal objection that has been urged against this view of the subject, is that the discharge in gonorrhœa and the ulcer in syphilis have peculiar characters. No one has yet, however, succeeded in pointing out the distinguishing characters of the gonorrhœal discharge, and the signs by which it was formerly so confidently asserted that the genuine syphilitic ulcer could be distinguished, have recently been indisputably shown to depend upon the structure of the part and other causes, and not upon any peculiarity in the agent producing it.

"When we compare," says M. Desruelles, "venereal ulcers of the genitals with those proceeding from other causes than syphilis, it is impossible to distinguish the former from the latter by any remarkable appearance, especially when they have existed some time. I have seen ulcerations produced by burning tinder, cantharides, caustics, and even by a piece of lint left for some time between the glans and the prepuce, present at the expiration of eight or ten days every appearance of venereal ulcers. The similarity was so close, that several Parisian physicians to whom I showed them, took them for venereal ulcers, and we never should have been undeceived, had not the patients themselves confessed the deception they had practised on us."

In fact, if an ulcer be produced artificially in any of the erectile tissues, and it be powerfully irritated, its basis will become hard, its edges callous, the bottom will appear excavated and grayish, exhibiting in short all the characters of a true Hunterian chancre. We have seen within the last few months two cases of ulcer on the lips of females presenting all the appearances above described, and caused by applications of irritating and caustic articles and relaxing poultices to common chopped lip.

If it should be said that we have only proved that a gonorrhœal and not a syphilitic virus may be spontaneously generated, we answer, that the identity of these two diseases was long ago proved by the decisive experiments of John Hunter, and though it has been subsequently denied, it is solely on hypothetical grounds. If the morbid secretion from an inflamed vagina be applied to a mucous membrane, it produces, as we have already said, irritation, whence follows an increased, and if the irritation is continued, a morbid secretion—but if applied to a delicate non-secreting portion of the body, or where the skin is removed, inflammation is excited, which terminates, as severe inflammation frequently does in these parts, in

ulceration. The less frequency of constitutional symptoms after gonorrhœa than subsequent to syphilis* is readily explained by the unfrequency of the absorption of the morbid secretion in the former.

"Much of the difficulty," Mr. Travers observes, "of this subject, has arisen from the supposition that either gonorrhœa or sores, or both, are the product of a particular virus or poisoned matter, and that a gonorrhœa necessarily gives a gonorrhœa, and a sore, a sore. This is altogether erroneous. Inflammation is excited by the irritation of matter from the inflamed follicles of the sound surface as well as from the ulcerated surface, and the difference of its effects upon the party who receives it, depends exclusively upon absorption or non-absorption, *i. e*, the formation or absence of a sore, a circumstance often accidental.

"We know how delicate and superficial a læsion, and how minute a charge, are sufficient for the introduction of the variolous or vaccine matter. When therefore, by the continued tension and friction of an exquisitely delicate cuticle, the smallest abrasion or breach of continuity permits the absorption of matter, *i. e.* inoculation, a sore follows, the secretion of which may be absorbed.

"The proper gonorrhœa, or inflammatory secretion from the sound mucous lining of the urethra, while confined to it, is incapable of producing secondary symptoms in the individual; its bubo, if present, is sympathetic, so is the sore throat, or inflamed membrane of the eye, or nose, if one or all should follow; *i. e.* they have no character but that of simple and superficial membranous inflammation. As these unquestionably do sometimes follow, though in so slight a degree as to be scarcely noticeable, the circumstance can only be explained by attributing it to the same "*consensus partium*," which determines the selection of these parts for the specific appearances when the matter of secretion is absorbed, and acts as a morbid poison. But when the matter of gonorrhœa is absorbed by an excoriated surface, and this surface becomes an ulcer, the matter which it secretes is capable of producing, by its absorption into the system, secondary symptoms in the individual. The absence of secondary symptoms in pure gonorrhœa depends therefore, not upon any difference in the quality of the matter, but upon a law of the animal economy, *that the inflammatory secretions of the sound surface are not absorbed into the system.*"

In a subsequent portion of his work, he observes in relation to this subject—

"The common notion prevails, that proper gonorrhœa, being a simple inflammatory secretion of the mucous membrane, and not acting as a poison upon the system, the lues or syphilis is altogether a distinct disease. Let us examine this opinion. I have said, that whilst on both sides the surfaces remain sound, no constitutional disease is discoverable. But before we decide that the matter secreted in gonorrhœa and in syphilis have no relation to each other, we must show that the gonorrhœal secretion being absorbed into the circulation,

* We retain the two terms gonorrhœa and syphilis, but it must be understood that we merely understand by them two forms of the same disease.

as in the case of superficial sores, is incapable of producing constitutional, or as they are called secondary symptoms. Now I aver that such a connecting link between these diseases exists, and is palpable to observation. I have already described the symptoms arising from the absorption of the gonorrhœal matter, and it cannot I think be denied, that the resemblance is such to those of syphilis, as to establish their very intimate relation if not their identity. If a constitutional disease be traceable through the medium of gonorrhœal sores in a subject hitherto immaculate, the next step in the inquiry is to determine the operation of a constitution already tainted with the poison of gonorrhœa upon sores of this description. Are not the natural secretions of the bowels, the skin, and the kidney, influenced by the deranged state of the constitution? Are not the morbid discharges from simple wounds and ulcers, having their origin in casualties, also subject to vitiation from a similar influence? We know that the unhealthiness of the matter of ulcers and suppurating surfaces, of whatever description, is constantly and truly referred to a prevailing morbid state of the system. Thus, if a poisoned habit contracts a sore, though the sore may have been caused by an accidental læsion of the skin, it becomes at once contaminated, and secretes a virus possessing properties not observed to belong to the secretion of a fresh and healthy system: the property, for example, of exciting upon a new surface an inflamed vesicle or pustule, which is followed by an excavated ulcer, instead of a superficial, raised or level sore, and which runs into phagedenic ulceration, whether on the glans penis or the tonsil; of affecting parts of the system not within the ordinary range of the milder poison, as the iris and the periosteal membrane; of exhibiting cutaneous eruptions peculiar in colour, figure, &c., and differing somewhat in other respect, though that remains for future research to determine, from the class to which they respectively approximate.

"From this observation it would seem that the gonorrhœal and syphilitic poisons are the same in kind, and that the only difference between them consists in the degree of their intensity and the extent of their operation."

Again he observes—

"The false partition between gonorrhœa and other venereal affections owes its existence to the fact, that in gonorrhœa no breach of surface occurs, and therefore no sore is formed, and no absorption or morbid secretion ensues. It is therefore under such circumstances, as generally supposed and treated, a simple disease. But let the inflammation affect or extend to the non-secreting cutis of glans or prepuce; or let an accidental breach accompany the gonorrhœa, and ulceration follow, what then happens? absorption, the secretion of a matter of which the gonorrhœal is the prototype, and the possible, not to say probable, consequence of the corresponding constitutional signs."

Other authorities and arguments might be adduced to show the identity of the venereal and gonorrhœal virus; but our limits admoish us that it is time to conclude, and we must therefore enter at once upon the consideration of the best mode of treating these diseases.

So great a diversity of sentiment prevailing respecting the origin

and phenomena of syphilis, unanimity is hardly to be expected as to the best mode of treatment. The most ancient method was that by antiphlogistics, which were recommended by Seb. Brant and Cornelius Gilius as early as 1496. Mercury was afterwards introduced as a remedy by Berengarius Carpensis or John de Vigo, it does not appear determined which, and from that period until within a few years, it has been solely relied on for the cure, and the idea that it could be effected by any other remedy, was scouted at as monstrous and absurd. Dr. Hennen, in his excellent "Principles of Military Surgery," says—

"No man could have been more convinced than I was, five years ago, of the extravagance of supposing that this disease, (syphilis,) could, under any circumstances, be cured without mercury, (to which alone I had trusted in at least a thousand cases,) until conviction was forced upon me by repeated observation, confirmed by an attentive consideration of the testimonies of the best informed practical writers of past times, and the opinions, both oral and written, of those of the present, whose opportunities have been such as to entitle their opinions to any weight on a practical subject."

When Mr. Fergusson announced that the disease was cured in Portugal without mercury, it was immediately asserted that it must be owing to the complaint existing in that country in a milder form than in other parts of the world. The falsity of this assertion, however, was soon made manifest by the successful treatment of many cases of the disease in Great Britain and France without the use of a particle of the vaunted sole specific. It was then said that the cases thus cured were not genuine syphilis; and various writers, among whom Mr. Abernethy and Mr. Carmichael stand conspicuous, attempted to distinguish several affections produced by impure coition, and to designate those which might be cured without mercury, and that which could be cured only by recourse to this remedy. The ulcer so well described by Mr. Hunter as possessing specific qualities, and certain secondary symptoms supposed to result solely from this sore, were believed to be incurable without mercury, whilst the various other sores and secondary affections were admitted to be cured by other measures. But the characters of this peculiar ulcer, imagined to be the infallible diagnostic sign of genuine syphilis, has been since indisputably shown to result from the tissue in which it is seated, and not from any peculiarity in the nature of the cause by which it is produced. It has, moreover, been equally shown, that the Hunterian chancre may be cured without resorting to the use of mercury; and this last fact is now so well established, that those who believe in a specific venereal virus, and that mercury is its an-

tidote, have been compelled to resort to the assumption that the disease has worn itself out, and now only exists in a spurious or very mild and easily curable form. Mr. Abernethy, in his "Lectures on the Theory and Practice of Surgery," just published, remarks—

"As this disease, (syphilis,) has almost become extinct, or is so modified as to be unlike that which Mr. Hunter has described, and which I had an opportunity of observing in the earlier part of my life, I do not think myself warranted in laying before the public what I have been in the habit of saying to students on this subject in my surgical lectures."

Mr. Travers also says—

"Judging from the records of history, there is much reason to believe that in the course of centuries the disease, (syphilis,) has been essentially altered in character."

It would be an interesting subject of investigation, but one in which we cannot indulge in this place, to inquire whether the disease be really milder than formerly, and if so, whether it be not owing to the abandonment of the mercurial, stimulating, and other irrational modes of treatment.

It is sufficient for our present purpose, to determine by authentic documents, the mode of treatment most effectual in the disease as it now exists. Previously to the present time, writers on the venereal disease published only the general results of their practice, and have not made known the proportion of cures and failures in the treatment they adopted. Ample scope was thus left to the operation of prejudice and misrepresentation, and it is impossible to ascertain the actual success of the older practitioners. To determine the best mode of treating a disease, it is necessary to compare collectively and individually the results of the various therapeutic methods—to exhibit numerically the different results—to describe with the most scrupulous exactness every symptom—to examine the influence of the treatment upon their appearance, termination, and mode of cure, &c. This has been done by many surgeons within the last ten or fifteen years, and the editor of Desruelles's Memoir has collected and placed in the appendix to that work, authentic documents relative to the treatment of nearly five-and-twenty thousand patients affected with the various forms of venereal disease, upwards of eleven thousand of whom, including a large number of cases of true Hunterian chancre, were treated with antiphlogistics, without the use of a particle of mercury, and with entire success. As the *possibility* of the cure without mercury cannot then be denied, in opposition to such a mass of evidence, we shall proceed at once to consider the *eligibility* of that plan of treatment.

To determine this point it is necessary to ascertain, 1st, by which mode of treatment the disease is most readily cured; 2d, which mode is most permanent; and 3d, and lastly, which is the least distressing, and does least injury to the constitution of the patient.

1st. *Duration of Treatment.*—In the official report of Sir James M'Grigor and Mr. W. Franklin, (see Appendix to the work at the head of this article,) it is stated that the average period required for the cure of primary symptoms without mercury, where buboes did not exist, was twenty-one days, and with mercury thirty-three days.

That the average period for the cure of primary symptoms with bubo was forty-five days when treated without mercury, and fifty days when treated with mercury.

That the average period of cure of secondary symptoms without mercury was from twenty-eight to forty-five days, and with mercury fifty days.

When it is recollected that these results are derived from the observation of nearly five thousand cases, they must be admitted to afford very fair means of comparison, and to possess a high degree of value.

M. Desruelles, from an experience in one thousand three hundred and twelve cases, state that the mean duration of treatment of primitive and secondary symptoms, without mercury, was thirty-two days, and with mercury, fifty days.

It appears from the report of M. Richond, who observed nearly three thousand patients, that of those treated without mercury for primitive symptoms, ninety-two per cent. were cured in thirty days, whilst of those treated with mercury, only twenty-eight per cent. were cured in that period: and that of those treated for buboes without mercury, sixty per cent. were cured in thirty days, whilst of those treated with mercury, only twenty-seven per cent. were well in that time.

Dr. Fricke, of Hamburg, states, that in his hospital, the average period of cure for primary and secondary affections, treated without mercury, was fifty days, whilst it was double that time in those treated with mercury.

It thus appears from the most authentic documents, founded on experience in a sufficient number of cases, and in different countries, that the cure is effected in a shorter period of time by the non-mercurial than by the mercurial practice.

2d. *Permanency of the Cure.*—In those treated *without mercury*

by the surgeons of the British army, it is stated by Sir James M'Grigor, that secondary symptoms occurred in not quite five per cent.—Richond states them to have occurred in two and a half per cent.—Fricke had no case of secondary affection;—in Sweden secondary symptoms occurred in seven and a half and seven per cent;—in America they occurred in two per cent. making an average of four per cent.

In those treated *with mercury*, it appears from the report of Sir James M'Grigor, that secondary symptoms occurred in nearly two per cent.—in those treated by M. Richond they occurred in five and a half per cent.—of those cured in the Swedish hospitals, secondary symptoms occurred in fourteen and twenty-two per cent.—and in those treated by Dr. Harris, they occurred in upwards of ten per cent.; averaging nearly eleven per cent. If it be said that the cases treated by fumigations with cinnabar should not be taken into this account, the number of secondary cases would even then be eight per cent. or double of those occurring after the treatment without mercury.

Thus secondary symptoms are shown to occur more frequently after the cure of primary symptoms *with mercury*, than when cured by antiphlogistics.

3. It only remains for us to inquire which mode of treatment is least distressing, and does least injury to the constitution of the patient. That the antiphlogistic treatment is least unpleasant to the patient, we believe has never been questioned, and that it never produces any injurious effects on the constitution, must be admitted. Of nearly two thousand cases reported by Sir James M'Grigor, as cured without mercury, every man was fit for immediate duty on dismissal from the hospital; whilst of those treated *with mercury*, one man was discharged the service on account of the injury his constitution sustained from the remedy, and another, after treatment for secondary symptoms by mercury, in consequence of that complaint. But the terrible consequences sometimes resulting from a mercurial course, are too well known to require a description; the subjecting of a patient to this treatment has always been admitted to be an evil, and the only apology ever offered, is its being a necessary one. This apology having been shown to be no longer admissible, those who persist in the mercurial treatment, in opposition to as large and authentic a body of evidence as has ever been collected to determine any point of practice, must offer in extenuation something more positive than their own vague notions, idle fears, or a blind devotion to dogmas, founded on prejudice and miscalled experience.

The appendix by the editor of the work at the head of this article, in which will be found the documents upon which the above calculations are founded, are worthy of an attentive perusal.

Upon the particulars of the non-mercurial treatment of venereal diseases, we have not time to dwell; the reader may consult on this subject the excellent memoir of M. Desruelles, in which he will find minutely detailed the method to be pursued in all the various forms, and the principles upon which it is founded, ably illustrated.

The observations of Mr. Guthrie are also highly interesting, and contain many important facts, but the author had not when his paper was written entirely divested himself of his old prejudices.

Mr. Travers still maintains the existence of a specific venereal virus, and that mercury "is its specific remedy;" we leave it to him to reconcile the former of these opinions with his belief in the spontaneous origin of the disease—and the latter with facts adduced in the appendix to the memoir of M. Desruelles. In justice to Mr. Travers, we must, however, state, that he acknowledges that "the disease may be cured without the employment of mercury," "not that it so accords with my own experience," he says, "that I can confide in it as a rule of practice, or recommend the disuse of mercury as a model for imitation; far otherwise." He also has the candour to admit, that—

"When we observe the tremendous havoc of this drug, (mercury,) upon the human frame, and consider the extent to which this gratuitous notion was carried, and the not less dangerous Boerhavian doctrine, "*in dubiis suspice lucem,*" it may well become a question, whether the remedy has not proved the greater evil."

Few persons are aware of the immensity of suffering, moral and physical, that an ignorance of the phenomena and treatment of venereal affections has inflicted. Independent of the permanent destruction of health from the excessive use of mercury, how often has suspicion been unjustly aroused between husband and wife, confidence destroyed, and both parties made wretched for life. Inflammation is sometimes excited in the vagina of newly-married females by excessive coition—the secretion thus rendered morbid, irritates the urethra of the husband, excites a discharge from the latter part, and instead of rest and cold applications being resorted to, which would completely remove the affection, coition is continued—irritating injections perhaps employed, the discharge increases, and the husband charges his wife with having been unfaithful. In vain she protests her innocence; the disease is said to be a specific one, and can be produced only by contagion.

Sometimes a man is affected with a discharge from his urethra, or ulcers on his penis, following connexion—these are healed, but he has vague fears that the disease still lurks in his constitution; he is perhaps engaged to be married, and dreads that he shall infect his wife—he subjects himself to a course of mercury, and injures his health. After his marriage, his fears still pursue him—he is constantly examining his penis for ulcers or a discharge; the irritation of coition or frequent handling of the part produces a slight abrasion, or he fancies it to exist—caustics are immediately applied to destroy the virus, and a sore is produced. If the husband be a man of honour, he immediately abstains from connexion with his wife; perhaps he fears that he has infected her, and in his anxiety lest he should have done so, and the disease arrive at a dangerous height before discovered, he makes a full confession—an examination takes place—a slight redness or abrasion is seen or imagined to exist in the vagina—caustics are applied—an unquestionable sore produced—both parties are put upon a mercurial course—if the wife be pregnant, the injurious effects of the mercury upon her constitution is seen upon the child when born, and attributed to the *virus*—what more could be required to convince the parties that they were diseased? Their misery may be easily conceived. These occurrences are not mere creations of the imagination—we could, if we were permitted, illustrate them by particular cases.

He, however, who would inculcate correct and rational views of the affections under consideration, must first remove a mass of error and prejudice, greater perhaps than involves any other class of diseases. We do not flatter ourselves that we shall be so fortunate as to do this, but if we shall succeed in attracting attention to the subject, we shall accomplish all that we proposed, and all that perhaps could be, at the present moment, reasonably expected.

We cannot conclude these cursory remarks without strongly recommending the memoir of M. Desruelles to the attention of the profession, as the only work in our language which presents an accurate account of the modern, we might say rational, opinions relative to the pathology and treatment of venereal diseases.

ART. XV. *Mémoire sur l'Emploi de l'Iode dans les Maladies Scrofuleuses, lu à l'Académie Royale des Sciences, dans la seance du* 22 *Juin*, 1829. Par J. G. A. LUGOL, Médecin de l'Hopital Saint-Louis; Précédé du Rapport fait à l'Académie. Par MM. SERRES, MAGENDIE et DUMERIL. Paris, 1829. pp. 78, 8vo.

Mémoire sur l'Emploi des Iodurés dans les Maladies Scrofuleuses; suivi d'un Tableau pour servir a l'Administration des Bains Iodurés selon les ages. Par J. G. A. LUGOL, Médecin de l'Hopital Saint-Louis. Paris, 1830. pp. 52, 8vo.

IODINE, as is well known, was introduced into the materia medica by M. COINDET, of Geneva, as a remedy, and almost a specific, against goitre. The very favourable reports of its success soon led to its extensive employment in various other diseases; and its remarkable discutient properties naturally suggested its application for the resolution of scrofulous tumours. The first, however, to use it in this disease to any extent, or with any method, was M. Lugol, one of the physicians to the Saint Louis Hospital, in which a large number of scrofulous subjects are collected. He charged himself with the task of ascertaining whether iodine might not afford in this class of diseases that relief which had been so hopelessly sought for from other medicines—and in the performance of this task he has evinced much ardour and assiduity. The success attending his first trials was such as to afford great encouragement. Unwilling, however, to place too much reliance upon these, he went on repeating and multiplying them, until he at length became fully convinced that the introduction of iodine into medicine was one of the greatest acquisitions made by the art of healing in modern times, since its use in scrofulous disorders always produces beneficial effects, and where it does not accomplish the complete removal of tuberculous and other affections, at least alleviates them, or arrests their progress.

The interest excited by the publication of the memoir first mentioned at the head of this article, caused iodine to be very extensively used, insomuch that in Paris its price not only rose, but the market was for some days actually exhausted. In this country, at least in Philadelphia, there is good reason to believe that scrofulous disorders constitute a far less proportion of disease than they do in Europe; they are, however, met with quite often enough to make us regard a sovereign medicine for them as a great desideratum. The consideration that iodine may be applied with advantage to other ailments of an intractable nature, also contributes to make the investigation of

its medicinal properties a highly interesting subject. Several reports of these hitherto made are much at variance—some extolling the medicine as useful, and even as divine, others denouncing it as highly pernicious. This difference of opinion must, we think, be owing in a great measure to the various modes of administering or applying the substance, and we are disposed to believe that much of the success which M. Lugol appears to have derived from it, is attributable to the judicious manner in which it was employed by him. Iodine has been charged, especially in Germany, with producing tubercles in the lungs, hæmoptysis, and other serious accidents; but M. Lugol declares that so far from occasioning thoracic disorders, several of his patients affected with them experienced the general good effects of the remedy, even where there were the strongest indications of pulmonary tubercles. In one case of this kind, the cough was so violent as to cause the ejection of the medicine, so that its use had to be suspended for three weeks, during which time, however, the cough was even more severe than before. The iodated solution being resumed, was no longer rejected from the stomach, and after a while the cough subsided, and the cervical tubercles, for which the medicine had been particularly prescribed, disappeared. M. Lugol believes himself warranted in making the declaration, that the only danger of pulmonary or other accidents to be apprehended from the use of iodine, is in giving it to the extent of three grains a day as recommended by M. Coindet, a quantity which, in the course of his experience, has always proved exciting to a degree transcending the salutary effects produced by more moderate doses. Let us suppose that different persons should set about investigating the medicinal properties of corrosive sublimate, arsenic, or any other heroic medicine, would not, we ask, a very different report be given by those who used three times the proper portion, from those who confined themselves to doses judiciously adapted to the system? Now, iodine is an agent of the greatest activity, and if its dose be not nicely adjusted like those of the other medicines we have just named, its use may be fraught with unpleasant, and even most serious consequences. M. Lugol says, that so far from its having proved in any degree prejudicial to health in his hands, it has always tended powerfully to reanimate the organic functions, and improve the general condition of the system. His report of the effects of iodine differ in another respect from what others have represented, for, instead of confirming the observation that its use produces emaciation, he thinks, on the contrary, it rather tends to favour the growth and development of the body. The result of his experience is certainly calculated to diminish the hopes of those

ladies who might be disposed to resort to it for the reduction of embonpoint.

The memoir laid before the Royal Academy of Sciences by M. Lugol, presents the results of seventeen months experience. According to the usages of this body, it was submitted to a committee of its members, consisting of Messrs. Serres, Magendie, and Duméril, by whom the patients were seen, examined, and interrogated. The report was confirmatory of the accuracy of the statements made in the memoir, a condensed view of which shows that of one hundred and nine patients treated in the time mentioned by M. Lugol, with iodine alone, thirty-nine remained under treatment, thirty had left the hospital with signs of amendment, and prospect of being cured, four had experienced amendment without any just expectation of an entire cure, and thirty-six were completely cured. Out of this number he has reported the details of only twelve cases.

The pharmaceutic preparations of iodine employed by M. Lugol, differ, as we have before observed, from those generally adopted by others, namely, the tincture of M. Coindet, and the syrup of Henry, Apothecary in Chief to the Civil Hospitals of Paris. His objections to these formulæ are, that having to be dealt out in drops and small doses to numerous patients, and repeated frequently through the day, they are unsuited to hospital practice, where convenience and precision are of so much consequence. Another, and we think still stronger reason, is derived from the particular nature of the remedy itself. Both the preparations being usually administered in a watery vehicle, the consequence must be, that the alcohol uniting with a liquid for which it possesses so strong an affinity, leaves the iodine to be precipitated in a pure state. Now, the medicine thus reaching the stomach in substance, like every other extremely active medicine in too great concentration, produces violent effects, somewhat analogous to those occasioned by its application to the external surface.

The preparation which M. Lugol prefers, is the solution in distilled water, observing always not to increase the quantity of this vehicle beyond what is required to procure perfect solution. The quantity of the vehicle he fixed upon was one pint, in which, he dissolved two-thirds of a grain, and a grain, so as to establish two degrees of the remedy, to be applied according to the states of the system or constitution of the patient. These degrees he called *iodated mineral water*, No. 1—No. 2. In every case he began by giving daily, half of No. 2, which of course contained only half a grain. After the lapse of a few days he commenced with No. 1,

but seldom resorted to No. 2, before the second month of the treatment. To many of his scrofulous patients he never went so far as to give the whole of No. 2, and rarely on any occasion exceeded this quantity, that is to say, one grain in the twenty-four hours.

But notwithstanding the success attending the internal employment of iodine in the treatment of scrofulous diseases, there are frequently cases demanding its external application. The preparations destined by M. Lugol for this purpose, are of two kind, namely, one a pomatum or ointment composed of fresh hog's lard, combined with simple iodine and the ioduret or hydriodate of potassium; the other, a solution of iodine in distilled water. The strength of each of these is so graduated as to present three degrees with the following proportions:—

Ioduretted Pomatum or Ointment.

	No. 1.	No. 2.	No. 3.
Fresh hog's lard - - - -	℔ij.	℔ij.	℔ij.
Ioduret or hydriodate of potassium	ʒiv.	ʒv.	ʒvj.
Iodine - - - - -	ʒiv.	℈xiv.	℈xvj.

Solution of Iodine for external Use.

	No. 1.	No. 2.	No. 3.
Iodine - - - - -	gr. ij.	gr. iij.	gr. iv.
Distilled water - - - -	℔j.	℔j.	℔j.

To designate the exact quantity of these preparations to be used daily is impossible, since this must vary with each patient, according to the extent of the diseased surfaces, or the excitement produced. In his first experiments, M. Lugol directed the ulcers to be washed, and the tuberculous tumours rubbed twice a day; but he afterwards found that the local excitement produced by leaving so short an interval between the applications, was too great, so that he caused the ulcers to be washed but once a day, except in cases where an abundant suppuration called for two dressings, as is generally the case in fistulous ulcers, symptomatic of scrofulous caries of greater or less extent.

Upon ulcers and other diseased surfaces, the application of iodine produces sensations of pricking and burning, or smarting, together with a painful sense of itching. In a few days these feelings are generally followed by amendment, in proportion to the increase of which is the diminution of the sensations here described. Nor is this diminution to be regarded as a mere effect of habit, since he has had patients

under treatment for a year, on whom the effects of the iodine were almost as active as at first, whilst they subsided, and finally went off entirely when the cure was completed. The operation of iodine upon tuberculous tumours is variable, as it sometimes quickly discusses them, whilst at others it appears to drive them rapidly to suppuration.

On being rubbed with iodine, the skin acquires a reddish-yellow colour, from the absorption of the substance and its presence in the cutaneous tissue. The epidermis usually peels off in scales of greater or less size, so that the ointment comes in close contact with the dermis. This last effect is generally in proportion to its local action, for it sometimes happens that the epidermis does not desquamate.

Administered internally in moderate doses, the solution of iodine constantly increases the appetite, which is so commonly deficient in scrofulous subjects. This effect M. Lugol looks upon as one of the most precious attributes of the medicine, since he thinks it not only shows an improved condition of the digestive powers, but leads directly to an amendment in the general health. If all this be true, it is easy to imagine how very advantageous the medicine may prove, not only in cases depending on a scrofulous dyscracy, but upon other morbid conditions of the system.

In almost every case in which M. Lugol used iodine, it acted as a diuretic, and in some instances to such a degree, that the patients were obliged to rise, contrary to their usual habit, once, twice, and even three or four times through the night. This effect has even been known to ensue almost immediately after taking an iodated draught.

More than one-third of those who used this medicine experienced its purgative effects in a greater or less degree. In some it even produced six or seven stools a day, and under such circumstances there were generally symptoms of colic. M. Lugol cites three cases of hereditary scrofula, in which the purgative operation of the remedy was experienced in the highest degree, and where likewise the application of the ioduretted hydriodate of potass pomatum was strongly felt for two or three hours, which three cases were cured. These effects of the internal and external use of iodine, though they may have prevented M. Lugol from increasing the dose or the quantity rubbed in, never, however, induced him to give up its use for more than two or three days at a time.

In several patients a flow of saliva was produced by the medicine, an effect only observed among his male patients. The females

more frequently suffered from pains in the stomach, to relieve which he gave two or three ounces of the vinous tincture of bark, shortly after the iodated mineral solution. This practice he acknowledges to have borrowed from M. Coindet, whose experience in the efficacy of bark in relieving the cardialgia sometimes produced in certain individuals by the internal use of iodine, he confirms. Having formerly administered to scrofulous patients the wine of bark, both alone and in combination with other medicines, without any success, he thinks himself warranted in believing that its occasional employment under the circumstances just mentioned, ought not to detract from the efficacy of iodine.

M. Lugol's second and more recent memoir relates to a new mode of applying iodine to the treatment of scrofulous diseases, namely, the use of iodureted baths; a practice which he says originated with him, and which he thinks promises to enrich very greatly the domain of the materia medica. He believes them to be at least as efficacious for the removal of scrofulous disorders as the sulphurous baths or fumigations are for those of the skin, and observes, that inasmuch as the most celebrated practitioners do not restrict the sulphurous baths to cutaneous diseases alone, so the iodureted baths should not necessarily be limited to the fulfilment of those indications only to which he has confined himself in the present report.

The effects of these are not, he says, to be estimated by a comparison with those of the iodated mineral water, or the solution of iodine as set forth in his first memoir. His preconceived opinion of the action of these baths, fell far short of the energy they exhibited on trial. This he attributes to several considerations, as, the extent of surface acted upon, the facility with which the iodine is brought in contact with and deposited on the skin, and the increased activity it acquires from being applied at the elevated temperature necessary for a bath. All these circumstances having been considered, he made his first trial with what he supposed would have proved a very weak proportion, but was surprised to find, that instead of increasing it, as he thought to have done, the bath was already stronger than could be used with propriety afterwards. In this first experiment, one ounce of the ioduret of potassium and half an ounce of iodine were dissolved in twenty ounces of distilled water, and added to a sufficient quantity of water for a bath. But these proportions produced so much redness of the skin, that he reduced the strength of the bath a fourth, making it for adults to contain six drachms of the ioduret of potassium and three drachms of the iodine. This forms the strongest bath he uses, the effects of which upon the

skin in reddening and inflaming it, are often so violent as to render it insupportable and make its suspension necessary.

"Now," M. Lugol observes, "the bath producing these consequences, contained only three drachms or two hundred and sixteen grains of free iodine, to about two hundred and forty quarts or sixty gallons of water, that is to say, nine-tenths of a grain per quart; and yet I have been in the habit of administering internally, without any inconvenience, a grain of iodine per day in twelve ounces of water."

The eyes, nose, and lips, are to be bathed every day, and the fistulous canals or openings injected with a solution containing three, four, or five grains of iodine to the pint of distilled water.

He likewise uses as a rubefacient in certain cases of cutaneous, tuberculous, and cellular scrofula, an ioduretted solution composed of half an ounce of ioduret of potassium and two drachms of iodine, dissolved in eight ounces of distilled water. This solution may also be added in sufficient quantity to poultices applied to cases of hypertrophy or scrofulous caries. It serves too for bathing the feet and hands, when increased to the quantity requisite for these purposes, and it is also a useful application to certain surfaces which require to be excited, especially in cases of inflammation of the palpebra, ozena, ulceration, &c. But for touching so as to create a still deeper impression, and even to act as a means of cauterization, he resorts to a formula consisting of six drachms of iodine, and four of ioduret of potassium, dissolved in the smallest quantity of the vehicle possible.

But to return to the general baths. M. Lugol, according to his previous mode of graduation, has established three degrees of these. The first consists of the proportions first mentioned as too strong for general use. This he calls No. 3. The two inferior degrees are composed, No. 2, of five-sixths, and No. 1, of four-sixths of the proportions composing No. 3. He commonly begins with No. 2, which however is sometimes found too strong. He mentions the case of a girl aged seventeen years, who used the bath of this strength for two weeks, three times a week, from whom the epidermis of the legs and arms scaled off, and the yellow tinge given to the body did not disappear in the intervals between the applications. The temperature of the bath was commonly made 29 or 30 degrees of Reaumur, equivalent to about 98 and 100 degrees of Fahrenheit. The length of the operation must be regulated by its sensible effects. Some cannot support the application more than half an hour, whilst others can bear it much longer. The anterior portion of the breast, with the anterior and posterior parts of the arm, are liable to become irritated, sometimes in a very high degree. The baths may be repeated two, three, or four times a week,

according to circumstances. The tendency of iodine to form chemical combinations being very strong, the common tub made of wood answers better for this purpose than those of metal.

That our readers may possess all the most practical information imparted by our author, we present a translation of the table he has prepared, showing the quantities of iodine and ioduret of potassium contained in the iodurettted baths, as adapted to all ages and circumstances.

In the composition of the baths for children these substances are graduated into four degrees, thus—

	No. 1. Scruples.	No. 2. Scruples.	No. 3. Scruples.	No. 4. Scruples.
Iodine	2	2½	3	4
Ioduret of potassium	4	5	6	8

Children from four to seven years of age take half the quantities designated in Nos. 2 and 3, dissolved in thirty-six litres* or about nine and a half gallons of water in a bath tub about two feet in length. The exact proportions to each litre are, of

	No. 2. Grains.	No. 3. Grains.
Iodine	0.83	1
Ioduret of potassium	1.66	2

Those from seven to eleven years of age take the whole of Nos. 1, 2, and 3, dissolved in seventy-five litres, or nearly twenty gallons of water in a bath tub two feet and a half in length.

The precise proportions of the ingredients to each litre are, of

	No. 1. Grains.	No. 2. Grains.	No. 3. Grains.
Iodine	0.64	0.80	0.96
Ioduret of potassium	1.28	1.60	1.92

For children from eleven to fourteen years of age, Nos. 3 and 4 are dissolved in one hundred and twenty-five litres, or about thirty-three and a quarter gallons of water, in a bath tub three feet in length. The proportions of the substances in each litre are, of

	No. 3. Grains.	No. 4. Grains.
Iodine	0.58	0.77
Ioduret of potassium	1.16	1.54

* A measure corresponding to two pints and one-eighth nearly of our measure.

The composition of the baths for adults has also four degrees, being divided as follows—

	No. 1. Drachms.	No. 2. Drachms.	No. 3. Drachms.	No. 4. Drachms.
Iodine	2	2½	3	3½
Ioduret of potassium	4	5	6	7

For young men and women, Nos. 1 and 2, are dissolved in two hundred litres, or about fifty-three gallons of water, in a bathing tub three feet and a half long. The proportion to each litre is, of

	No. 1. Grains.	No. 2. Grains.
Iodine	0.72	0.90
Ioduret of potassium	1.44	1.80

For adult men and women, Nos. 1, 2, and 3, are to be dissolved in two hundred and forty litres, or sixty-four gallons of water, in a bathing tub three feet nine inches long. Each litre would then contain, of

	No. 1. Grains.	No. 2. Grains.	No. 3. Grains.
Iodine	0.60	0.75	0.90
Ioduret of potassium	1.20	1.50	1.80

The proportions in a bath of four feet in length containing three hundred litres, or seventy-nine gallons, having the whole of Nos. 3 and 4, are, of

	No. 3. Grains.	No. 4. Grains.
Iodine	0.72	0.84
Ioduret of potassium	1.44	1.68

It is important to observe, that M. Lugol looks upon the ioduret of potassium, or hydriodate of potass, as solely acting the part of a neutral, serving only to increase the solubility of iodine, without concurring otherwise to promote the medicinal effect of the baths. That, in fact, the energetic action of these is almost exclusively owing to the quantity of iodine superadded. In proof of this position he states, that he has employed the ioduret of potassium alone, and increased its dose to three ounces; that he has also tried the pure iodine, in the proportions of three drachms to three drachms and a scruple to the bath; and finally, he has again examined the effects of the mixed solution of hydriodate of potassium and iodine, No. 3 and No. 2. His experiments and observations result in the following conclusions:—

1st. The ioduret of potassium produces scarcely any action, even in the proportion of three ounces to the bath.

2d. The free iodine must be regarded as the active principle of the ioduretted baths.

3d. The quantity of iodine ought generally to be from two to three drachms per bath, and very rarely more.

4th. The pure iodine is seldom entirely dissolved in a bath, from whence it arises that its action being unequal, may occasion violent local effects, but fail in its general operation upon the system.

5th. Iodine previously dissolved in alcohol, and afterwards mixed in a bath, does not remain in a state of solution, and besides produces effects upon the olfactory nerves, amounting to a species of intoxication, which may proceed so far as to occasion a distinct and permanent cerebral congestion.

6th. The surest mode of using iodine in a bath, is first to dissolve it in the hydriodate of potassium.

That it should be necessary for the complete division and solution of iodine to have it previously dissolved in the hydriodate of potassium, is unfortunate, since among other objections, it adds considerably to the expense of the baths, and thus opposes an obstacle to their extensive employment, at least in hospital practice. M. Lugol, however, mentions, that M. Henry, the younger, adjunct Apothecary in Chief to the Civil Hospitals of Paris, has proposed to remedy this last difficulty in some degree as regards hospitals. His plan is to receive the contents discharged from the baths in a common reservoir, and to precipitate the iodine by means of the acetate of lead.

As M. Lugol has conducted his experiments with iodine not only upon a larger scale, but also in a different, and we think, a much more rational manner than any of his predecessors; with results too, of the most favourable kind, we have taken some pains to lay before our readers, the most practical and essential information which his memoirs contain. All who feel disposed to give the medicine a trial in their practice, whether in scrofulous or other diseases, will, we believe, derive important information and assistance from the investigations of M. Lugol.

G. E.

ART. XVI. *Les Médecins Français Contemporains.* Par J. L. H. P***. Paris, 1827, pp. 112, 8vo.

A PART of the articles of the work before us, first appeared in a Parisian Journal, where they attracted so much attention as to induce their author to embody them in a separate form, and to complete the task he had undertaken, on a more enlarged and extended scale. The work, as far as it has progressed, has lost none of its claims to notice. Its style is lively, piquant, and of classic purity and elegance; but this is not its chief merit. Neither is it a mere biographical sketch of the physicians of the present time, who have contributed to the advancement of French medicine. Its aim is to make us acquainted with their respective labours, to canvass their opinions, and to estimate the influence which these opinions have exercised over the science. If we may venture to judge of the whole, from the articles on those physicians with whose doctrines we happen to be tolerably familiar, both from their lectures and works, we should say that the author has treated of his cotemporaries in a spirit of philosophical candour and fairness, as well as with ability and learning. He commences with BROUSSAIS, with whom we shall occupy ourselves on the present occasion, reserving for future numbers, such other notices as may interest American physicians.

The boast of this celebrated reformer, that he has created Medicine, is extravagant: still it cannot be denied that his works form as distinct and important an epoch in the annals of medicine as those of GALEN, STAHL, or BOERHAAVE of preceding times. Aided by the labours of BICHAT, he has opened to us the only legitimate mode of investigating pathological derangements, by connecting them with the vital properties and functions of the system. In conjunction with that illustrious physician, he may be considered as having really given birth to the anatomico-pathological school, now making such rapid advances, and which threatens to subvert some of the peculiar doctrines of the physiological medicine. So that Broussais has not only given us a new system of doctrines, but he has taught us the way to detect his own and others' errors, by localizing disease more completely than any preceding writer, and by making it to consist in something positive, appreciable; in short, in the organic lesions of the animal structure. If this principle does not lay open to us the whole arcana of pathology, it, at any rate, will exercise a salutary controul over the imagination, and confer on the doctrines of medi-

cine, a greater degree of stability than they have heretofore enjoyed. Although the American Journals have not been altogether silent on the progress and tendencies of these views, they have not perhaps brought them before their readers as extensively as their importance would seem to claim. The work at the head of this article, opens with an able critical exposition of Broussais' works and doctrines, the most interesting parts of which, we shall endeavour to condense, with such additions and alterations as our own investigations have led us to adopt.

M. Broussais is without doubt, the most remarkable medical writer of the present time. The splendour of his works, the celebrity of his lectures, and a great accession of proselytes have, in a few years, widely extended his name and doctrines. He has effected an important revolution in the science of medicine in France—a revolution in some respects beneficial, in others prejudicial, but in every way worthy our consideration. Heretofore the spirit of party, more than ignorance, has controlled the judgments passed upon his writings, both by partizans and adversaries. By one side he has been represented as an unrivalled, transcendent genius, who has definitively settled the principles of theoretical and practical medicine, and that hereafter, physicians will have little more to do, than to follow on in the route he has marked out. By the other, he is considered as a mere sectary, whose impetuosity and audacity take the place of genius and of force, and who has fascinated the weak and the superficial by lowering the science to their standard. There are doubtless, other and more temperate opinions, which, after the first effervescence of party shall have passed away, will be listened to and prevail: in the mean time, we shall attempt without siding with either of the belligerents, to give some account of the works and doctrines of this celebrated man.

The *History of Chronic Inflammations, the Examinations of the Systems of Nosology, &c.* and the *Treatise on Physiology applied to Pathology*, are the three principal works which comprise the different parts of his doctrines. Published at different and distant periods, they mark the several changes the author has given his doctrines in their progress to their present form.—*The History of Chronic Inflammations* is a work of pure observation, abounding with just and sagacious views on pathological anatomy, combined with fragments of a half-formed theory. He has here pointed out the errors that prevail in the treatment of many of these cases, the physiological importance of the alimentary canal, the frequency of its lesions, until then, not at all understood, and the influence of these affections on other dis-

eases which they complicate. He insists on the necessity of ascertaining the condition of the digestive organs before introducing into the stomach, medicines that may aggravate its already diseased state. And, finally, he investigates the character of inflammations in the different tissues of the economy, detecting their origin, tracing out their progress, and following them through their various phenomena, to their ultimate disorganization of the organ affected. The most rigid scrutiny pervades these researches. A great number of cases, described with clearness and precision, alone furnish the materials, from which are deduced the nature of the malady, and the method of treatment. The merits of the work are rendered still more striking by being couched in a style at once incorrect, rugged, and capricious, but at the same time fervid, copious, and forcible. Notwithstanding this, it will remain a monument of the author's genius, and of the originality of his views.

The *Examination* is composed of two parts entirely distinct in character and object. The first is a collection of aphorisms on physiology, pathology, and therapeutics—a code of a new medical doctrine, given without commentary, in a peremptory, magisterial tone, and in concise, laconic language. A system so novel and vast, thrown as it were before the public in so abrupt a manner, would neither have excited attention, nor been comprehended, had not the author at the same time destroyed the authority of his predecessors and cotemporaries, and overthrown the prevalent theories of the schools. The enterprise was bold, and required for its execution a combination of no ordinary qualities—audacity of mind and character, perseverance, and solid scientific resources; Broussais possessed these, and, it must be confessed, has known how to employ them. His book created a great sensation, and, considering the period at which it appeared, its success has been truly astonishing.

The Hippocratic doctrine, the humoral pathology, Brownonism, and the doctrine of the nosography of Pinel, are the principal subjects treated in the Examination. Broussais has shown conclusively that the Hippocratic medicine, which some would yet consider as a system of doctrine, is nothing more than a collection of traditional opinions, without order or bond of connexion, and altogether behind the actual state of the science. He nevertheless renders a just tribute to the eminent genius of Hippocrates, not imitating in this respect the cynical and unjust language of his cotemporary, Rasori.

The humoral pathology has given him but little labour to destroy. Brown, Bordeu, and the recent labours of the French school, had already sunk its reputation very low. He has accordingly been re-

proached with conjuring up ancient errors for the glory of triumphing over them. Although this reproach is not without foundation, it must be confessed that the language of the humoral pathology has been for ages so interwoven through all parts of the science, that it yet appears in many modern works.

The doctrine of Brown was with more difficulty combated. In theory it is both philosophic and profound, and, after having borne sway throughout Europe, still exercises a considerable influence in the treatment of diseases. Broussais has devoted to its refutation both time and labour; for, as his own doctrine offers certain resemblances with that of the Scotch reformer, it was important for him to distinctly show in what and wherefore the two doctrines differed. The following are the principal propositions which Broussais establishes and sustains in contradiction with Brown's system. 1. The excitability is not uniform in all the organs; neither is it ever increased or diminished in the same degree throughout the system at the same time. 2. Diseases are never primarily general. 3. Diseases of debility, (asthenia,) are not the most numerous. 4. Stimulant remedies are very seldom required in the treatment of diseases.

Formerly, Broussais had designated the venerable author of the nosography as the father of clinical medicine in France, as a genius who had rendered great services to science and to humanity; but then it seems he had not thrown off the yoke of authority. He had been his pupil, and continued for a long time to coincide in opinion with his master on many points. In his *Examination*, however, which first appeared in 1816, his tone with regard to him is altogether changed. Now he proclaims the classification of the nosography to be radically vicious, grouping symptoms arbitrarily, and thus constituting a system of pure ontology. This is a new term which Broussais has introduced into medicine. By an ontologist he would designate a physician who treats of diseases as distinct essences existing independently of organic lesions. The bitter, sarcastic tone, in which Broussais attacked his ancient friend and master, has justly brought down upon him the heavy censures of his compeers; but while we venerate Pinel, and are grateful to him for the services he has rendered, it must be conceded that his system is shown to be defective, and must be renounced. Viewed as a whole, the *Examination* is undoubtedly a most remarkable performance. Minds capable of projecting and executing the entire re-edification of a science, are indeed rare. Whether true or false, the system which such a mind elevates on the ruins of all others must at least be a work of genius. It is truly a vast idea to embrace in one view so many dif-

ferent systems, to examine them successively, and to judge of their soundness in a philosophical manner. Broussais appears to have been the first physician who has thrown over the whole history of medicine a coup d'œil so scrutinizing and hostile. Every one felt the necessity of reform, but no one ventured to attempt that for medicine which the nineteenth century had accomplished for the physical and natural sciences. Broussais undertook the task, and it must be allowed has in part executed it. He has done for medicine what Descartes did for all the sciences. He has shown us that the medical edifice, reared during the course of ages, is a mere scaffolding without stability or support. He has made us conscious of the absurdity of its principal dogmas, the radical vice of medical language, and of the innumerable errors which it only served to perpetuate. The imperfections of the work are neither few nor trifling; the reader will find in it much to pardon and overlook, but he will also find the subversion of many errors.*

The *Treatise on Physiology applied to Pathology*, is greatly inferior to either of his preceding works. It reveals neither the sagacious observer of the first, nor the able controversialist of the second. It was evidently written for the purpose of exhibiting in a more positive manner than had been previously done, the strict accordance of his doctrines on the nature of diseases and their treatment, with the laws which regulate physiological phenomena. In this, however, he has failed. His physiology, instead of standing prominently forward as an independent system of doctrine, is straightened to accommodate itself to the different pathological views he had formerly promulgated. Besides, a full exposition of the author's opinions on animal organization, this work contains his peculiar notions on the nature of sleep, on the influence of the stomach over the passions and the intellectual operations, and the sympathetic action of the nerves; all of them sufficiently striking and novel to merit a serious examination. In other respects the book is of little worth, has been but coldly received by the public, and done little for the advancement of physiological medicine.

Besides the above works, M. Broussais has in the course of his medical career published several others, which we can only name on the present occasion. An *Inaugural Thesis on Hectic Fever*, an article, inserted in the Encyclopédie Progressive, *on Irritation, a Ca-*

* Since this criticism was written, M. Broussais has published a new edition of his Examination, greatly improved, and enlarged to double the size of the former. It is from this edition that a translation is now preparing, and which will be shortly published by Messrs. Carey & Lea.—Ed.

tschism of Physiological Medicine, a Treatise on Irritation and Insanity, besides numerous articles in his Annals of Physiological Medicine. All except the first, bearing the impress of a bold, restless, and innovating spirit, but adding nothing of consequence to the doctrines he has previously inculcated.

It is no easy task at this early day to give a comprehensive summary of the physiological medicine. Some of its doctrines, even with the professed disciples of the new school, are still *sub judice,* and many of them have not received that degree of attention which is required to fix their influence and extent in the general system. We will endeavour, however, to bring together its more prominent features.

Physiological Principles.—1. Life is invariably revealed by one phenomenon, denominated irritability, which resides in every part of the animal system, and is the generator of all other vital phenomena. Sensibility is not a primitive vital property—it is the functional result of irritability, and sensation is the perception of the exercise of this primitive vital property. Irritability is the property which a part possesses of being moved on the application of stimuli, which action is usually denominated contraction; so that the vital properties are finally resolved into the power of contraction, or the property of contractility.

2. The composition, formation, development, and conservation of vital substances depend upon an invisible, incomprehensible power, called vital energy, *(force vitale,)* and upon the operation of a peculiar chemistry, *(chimie vivante,)* with which living parts are endowed by this power.

3. Life is alone maintained by the constant application of stimuli, producing excitement; and each organic tissue or organ has its appropriate stimulus.

4. Life, or the property of contractility, is not equally distributed throughout the system. Some tissues and organs possess it in a high degree, others in a less degree. This inequality of distribution causes an endless diversity in the character and energy of the phenomena which occur in the different tissues of the system; but however diverse in their forms, they are always identical in their nature, and are to be resolved into the exercise of the property of contractility. The tissues most highly endowed with vital energies, are also the most easily stimulated, and quickly transmit their stimulations to every part of the system.

5. The essential phenomena that follow the application of stimuli to a vital tissue, are contraction of its fibres, and an accumulation

of the circulatory fluids in the parts acted upon, constituting a state of vital erection, which state may be repeated in the brain, through the medium of the nerves, producing there sensation, and then successively desire, will, muscular motion.

6. The stimulation produced in one part is soon repeated, through the mediation of the nerves, in other parts: this is sympathy. The excitement is never uniform throughout the economy: when it is excessive in one part, its due degree fails in some other. Its just distribution throughout the system constitutes a state of health.

Pathological Principles.—1. Disease is the result of the irregularity of function: which function becomes deranged from some change injuring the vital properties of the part affected. This change consists in either an increase or decrease of the vital properties, produced by the orderly and healthy actions being broken by the undue application of excitants. The derangement may take place in various ways. Sometimes the excitants are too powerful, or not enough so: in the first case the irritability becomes too great, and in the other falls belows the healthy standard. In other instances again, the irritability is excessive or defective: in the first case the natural excitants become insufficient, and in the other too great.

2. The pathological condition then, is either the exaggeration or diminution of the physiological condition, and not an alteration of qualities. Healthy excitation, irritation, super-irritation, and inflammation, are the same condition of things, only in different degrees, and every pathological alteration arises from irritation or ab-irritation.

3. Irritation is always identical in its nature, wherever situated, and is characterized by afflux of the fluids. It is primarily local, afterwards extending to other parts or organs without changing its character, but always augmenting the vital phenomena. Exaltation of one or many of the organs usually induces debility and languor in the others.

4. Irritation may be either continued or intermitting.

5. Irritation of the sanguineous capillaries, attended with pain, heat, tumour, and redness, is inflammation. If these vessels allow the blood to escape, it becomes a hæmorrhagy. When the irritation is situated in the vessels conveying the colourless fluids, there is neither heat, redness, nor pain, and the affection is denominated a sub-inflammation. When the irritation is seated in the nervous tissue, it is chiefly characterized by pain, and called a neurosis.

6. The idiopathic fevers of authors, are gastro-enteritis: sometimes complicated with other inflammations.

7. There are no specific diseases. All agents, either augment or depress the vital properties, producing either irritation or ab-irritation.

8. Debility may be produced, by either irritation or ab-irritation. The former is not a disease, and will cease on the removal of the irritation producing it. Primitive debility occurs but rarely; it is chiefly manifest in scurvy, asphyxia, from long abstinence, loss of blood from hæmorrhagy, and in old age. It may even in these cases be accompanied with irritation of one or more of the organs.

Therapeutical Principles.—1. As there are only two classes of diseases, the irritative, and the ab-irritative, so there are only two therapeutical indications: to excite the debilitated part, and to enfeeble the super-excited part. All remedies are therefore either debilitants, or stimulants. Debilitants are either positive or negative. Positive debilitants are either extremely few* or perhaps do not exist. The negative debilitants are the abstraction of blood, the application of cold and abstinence.

2. Besides the use of debilitants to subdue irritative diseases, stimulants are frequently applied to a distant, sound part, or to a less important organ than the one affected, for the purpose of translating the irritation to it, on the principle, that irritability becomes diminished in one organ or part, from its excessive accumulation in some other. This is called revulsion. It can only be employed in diseases of little intensity, or after the force of the disease has been weakened by debilitants. The crises are merely natural revulsions; as where internal inflammations are removed on the coming on of general perspirations, hæmorrhagies, flows, &c.

3. There are no such things as specific remedies. When stimulants remove certain diseases heretofore esteemed specific, it is only by acting as revulsions.

4. Direct stimulation is only indicated in diseases of primitive debility. Irritative diseases are sometimes cured by applying stimulants to sound parts, and thus indirectly debilitating the irritated organ.

5. As all diseases are originally local, it is necessary to search out the organ primitively affected: on correcting its derangement, the sympathetic actions will cease.

* M. Broussais, in his Examination and on other occasions, has admitted, to a certain extent, the truth of Rasori's principle of contra-stimulation. Brown has also remarked, that certain substances stimulate the economy in a way subversive of its healthy powers, and thus depress its vital actions. Neither of these physicians, however, seem to have been willing to employ the principle in the treatment of diseases.

Such are the leading features of the physiological medicine; reducing the varied phenomena of life to a few general principles, and the treatment of diseases to two indications. It would not be difficult to show that a part of this theory rests upon insufficient data, and that a part of it requires the addition of other principles to enable it to account for all the phenomena of life and disease; but it will be a more profitable and agreeable task to sum up in a few words the benefits, we think, Broussais has conferred upon science by his labours. He has triumphantly overthrown the besetting vice of Brown's system—the doctrine of indirect debility; he has, more clearly than any preceding writer, pointed out some of the laws which regulate the action of stimuli on animal organization; he has shown the necessity of tracing diseases to the organ affected, and of referring symptoms to their true causes; he has introduced into medical language, a precision heretofore unknown, although his own language is often uncouth and unnatural; he has shaken the system of eclecto-empiricism, that patch-work of accommodating minds, by pouring upon it a torrent of unanswerable ridicule; he has guarded practitioners against the too frequent use of stimulants in the treatment of diseases, and destroyed the pretensions of a crowd of medicaments to specific and peculiar properties; in short, he has given a character and direction to medical science, which his most declared enemies find themselves obliged to conform to, and which promises still greater things for the cause of humanity.

Brownonism may be considered as in some sort the parent of both Broussais' and Rasori's systems, and a comparison of the principal points of the three will enable us to form precise notions of the distinctive characters of each.

They all agree in the first great principle—that life is alone revealed to us by the production of irritability, on the application of stimuli. What Broussais calls irritability, Brown denominates excitability, and its result excitement. They both limit vitality to two modifications—its excess and diminution; all diseases to two classes—the irritative, (sthenic,) and ab-irritative, (asthenic,) and contend that all agents whatever, applied to the living fibre, stimulate it. So far they both agree; and it is somewhat extraordinary, that starting from the same general principles, the two systems should immediately diverge, and lead to results in almost every instance diametrically opposite to each other.

The following are their most material discrepancies: Brown taught that the excitability is uniformly spread throughout the system, that it is one and indivisible, and cannot be exalted in one part without

being increased in every other. Broussais, on the contrary, although he believes the irritability to be always identical in its nature, contends that it is imparted in different quantities or degrees to the different tissues; that it cannot be either increased or diminished throughout the whole system at the same time, but that its augmentation in one part necessarily leads to its diminution in some other part, and *vice versa*. Here the Scotch theory is a conception purely speculative, whilst Broussais reposes his on the distribution of vitality, as taught by Bichat.

Brown makes excessive excitement to exhaust the excitability, producing indirect debility; but Broussais insists that this state increases the irritability, as long as the organic structure is not materially impaired, and that in a state of health, the increase of stimulants tends to a state of strength, by a law of habit, which enables organized matter to accustom itself, to a certain extent, to the kind and quantity of stimuli applied.

In pathology they class diseases in an inverse order. Brown, blinded by the state of apparent feebleness, which accompanies all severe diseases, and taking into consideration the stimulant character of their causes, concluded that almost all diseases were asthenic. Broussais, on the other hand, having remarked that debility was the consequence of a phlogistic condition of the internal organs, and viewing the nature of causes as very chimerical in settling the character of diseases, considers a very large majority of diseases to be irritative, (sthenic.)

Brown regards nearly all diseases to be primitively general, in accordance with his notion of the indivisible character of the excitability; while Broussais makes them all primitively local, and only rendered general by the law of sympathy.

In therapeutics there is the same dissent. Brown imagining that he every where meets with debility, continually lavishes stimulants. Broussais, seeing every where irritation, deals as constantly in debilitants. The former, in conformity with his views of the nature of excitability, teaches that all medicaments act in a general manner on the system, to whatever tissue they may be applied; while the latter believes them to act always locally on the part to which they are applied, and that other organs are only modified sympathetically through their agency.

The contra-stimulists agree with Brown and Broussais in their division of diseases into sthenic and asthenic; and with the latter in considering the sthenic to greatly predominate. They admit with Brown the doctrine of diathesis, both local and general. With both

they differ entirely on the action of medicaments and their classification. They maintain that not only all external agents do not stimulate the living fibre, but that a very great number of them do directly and positively depress the vital actions. These they call contra-stimulants, and singular enough! they belong principally to that class of remedies, (the mineral,) to which both Brown and Broussais attribute stimulant properties in an eminent degree.

The cause of this wide dissension is worthy of attention. Rasori, becoming convinced that the sthenic character predominated in a multitude of cases, where the followers of Brown admitted only debility, and seeing, besides, that they are cured by remedies reputed to be stimulants, he hence concluded that these reputed stimulants were not really such, but acted in a manner diametrically opposite: so that differing from Brown in his pathological theory, he coincides with him in the curative means to be employed. So convinced are the Italians of the nature of this class of remedies, that they consider their operation on the system, as a test of the existing diathesis, and when they are found no longer to agree, it is attributed to a change of diathesis, and the class of remedies are changed accordingly. Broussais of course dissents wholly from these views, and condemns the employment of these remedies as incendiary and pernicious. When they do remove diseases, he thinks it is by acting revulsively; but insists that their use is fraught with danger, and that the principle should be rejected.

In concluding, it might be expected that we should take some notice of the numerous critiques that the physiological medicine has called forth, but we have extended this article much beyond our first intention, and shall close it by remarking, that they are, for the most part ridiculously extravagant, and have totally failed in retarding the propagation of the doctrine, or in refuting its errors. From this remark we would except the Letters of M. Miquel, which are able, and advance objections, which, as far as we know, have not been answered. Whatever modifications, however, the doctrine is destined to undergo, from further experience, and the accessions of scientific researches, there will, we confidently believe, always remain enough of Broussais' labours to place him among the most illustrious names that have adorned our profession. C. D.

ART. XVII. *Lehrbuch der Gynäkologie, oder Systematische Darstellung der Lehren von Erkenntniss und Behandlung Eigenthümlicher Gesunder und Krankhafter Zustände, Sowohl der nicht Schwangern, Schwangern und Gebärenden Frauen, als der Wöchnerinnen und Neugebornen Kinder. Zur Grundlage Akademischer Vorlesungen, und zum Gebrauche für Praktische Aerzte, Wundärzte und Geburtshelfer, Ausgearbeitet.* Von CARL. GUSTAV. CARUS, Dr. der Philosophie, Medicin und Chirurgie, &c. &c. Zweiter Theil, pp. 608. Leipzig, 1828.

Compendium of Gynæcology, &c. By C. G. CARUS, Doctor of Philosophy, Medicine and Surgery, &c. Part second. Leipzig, 1828.

THE second volume of the work before us, commences with the consideration of the second part of special gynæcology, under which head, it has already been shown, that Professor Carus embraces whatever appertains to the woman, considered in relation to her offspring; as "pregnancy, delivery, and the period of confinement, and nursing."

"The remarkable cyclus of the female existence," says the author, "which, in speaking of the three great stages of life, we divided into pregnancy, (Schwangerschaft,) delivery, (Wendepunkt,) and the puerperal state, (Wochenperiode,) commences with the act of conception."

By conception is meant that condition resulting from the co-operation of the male and female orgasm, by which is developed the rudiment of a succeeding pregnancy. This latter state includes that period during which the product of the conception is lodged within the cavity of the uterus, and attains its full development.

"The conception is considered natural, when it takes place from a fruitful union between the sexes, and constitutes the foundation of a natural pregnancy. By a natural pregnancy is understood that in which the impregnated ovum is lodged within the cavity of the uterus, has its different parts regularly unfolded, and at the expiration of the proper time, attains its full development."

1. *Conception*—Under this head, the author considers the relationship between the two sexes and the new product, as exemplified in the propagation of animals and vegetables, which he says presents a striking difference.

"In both plants and animals, the rudiment of the new being is, at first, manifestly an integrant part of the material organization. This is exemplified in the first, in the fruit-germ, which occupies the flower before it becomes fecundated; and in the second, it exists in the ovaria, like any other organ of the body, long before the act of copulation. In the male, however, the germ does not

appear so clearly before the union between the sexes, to consist of a portion of the old organization; indeed it may be alleged to be the product of the act itself—an opinion which is rendered still more probable, when we examine those animals, which approximate, by the early development of their germs, to the mode of propagation exhibited by the lower order of animals, by cuttings, as is seen in the polypus, (hydræ,) where the young, without previous union of the sexes, sprouts up, like a twig, from the body of the mother. These considerations render it probable that the materials of the new organization are furnished by the mother, and that they are animated, or vivified, by the influence derived from the male. It may be compared to a tree, which, under the influence of light and warmth, brings forth flowers and fruit, or to the earth itself, the organic products of which, influenced by the sun and other agents, attach themselves, like a new offspring, to its surface."

Against the hypothesis which supposes the necessity of an admixture of the male semen with the materials furnished by the mother, and its constituting a part of the new organization, our author opposes the phenomena of the impregnation of plants, where he conceives that the pollen can scarcely become mingled with the germ of the flower—the same process in the fish, and amphibiæ, in which the mere contact of the attenuated semen is all that is requisite to ensure fecundation, and even some anomalous cases of impregnation in the human subject, as, for instance, when conception has taken place, where there was a complete occlusion of the vagina, or uterus. In a remarkable instance of this kind mentioned by Champion, (Journal Universel des Sciences Medicales, Mai, 1819,) "a woman became pregnant whose hymen completely closed up the vagina, except a small oblique opening, scarcely large enough to admit a small sound."

The next point in the investigation is to determine where this germ or ovum first becomes visible. In animals this is unquestionably the ovaria, but in the human subject, it has been a question with some, (amongst others, Wildbrand,) whether it does not first become manifest within the cavity of the uterus. Arguments drawn from analogy, however, as well as the existence of the vesicles of De Graaf, in the ovaria, where they probably become expanded under the influence of the exalted creative powers, awakened by the sexual orgasm, seem to prove, that the germ constitutes from the first an integrant part of the ovaria of the mother; that within the space of two or three days after conception, in the human subject, it is separated from this connexion, to be conveyed, subsequently, into the cavity of the uterus, to undergo its full development. Such is the opinion of our author, and we believe of most well-informed physiologists. Relative to the subject of conception, he very correctly observes, that the corpora

lutea cannot be considered as affording evidence of a previous conception, since they are often developed by disease upon the surface of the ovaria, or by unknown causes.

It appears from records kept upon the subject, that females conceive most readily in spring, and in those years which are most moist and seasonable; that in autumn, and especially in the month of October, fewest conceptions take place, and consequently that the smallest number of births occur in June and July. The tables of our author, moreover, prove the correctness of an assertion made by Professor Osiander, that more male children are born during the new and increase of the moon—more females during its full and decline.

2. *Pregnancy in general.*—Pregnancy is divided, by Professor Carus, into normal and abnormal, of which the first only is considered in this place. It is again divided into single, where there is only one child; doublets, or twin pregnancy, where there are two; triplets, where there are three; quadruplets, where there are four children, &c. More children than these are unquestionably sometimes born at one birth, yet we must not give credence to the fabulous reports of women having been delivered of ten or thirteen, nor to the still more miraculous story of a Countess of Henneburg, who is reported to have been delivered, at one time, of three hundred and sixty-five children. "It is stated by J. F. Osiander, that at the Maternité of Paris, the proportion of twin to single births, is 1 to 91; and that triplets only occurred once in eight thousand six hundred and fifty-four births."

A remarkable departure from the characters of a true pregnancy, sometimes takes place, which consists in this, that the two fœtuses are not the result of the same act of the orgasm, but are the consequence of two separate conceptions. This form of pregnancy has been divided into two varieties, according as the second conception takes place directly after the first, or as a considerable space of time elapses between them. The first variety constitutes what has been called superfecundation; the second superfœtation. Upon these points there has always existed some difference of opinion, nor is the question decided, even at present, there still being some who believe in the possibility of superfœtation, whilst others deny that it can ever take place.

With regard to the question of superfecundation, the difficulty is easily solved; for, although it may at first sight appear impossible to account for such an occurrence, experience clearly proves that it does sometimes take place, as well in animals as in the human subject. Thus it seems, that during the first or second day

after the first conception, the orifice of the uterus remains sufficiently patulous to admit of the occurrence of a second conception. We find, accordingly, that in animals, the offspring presents, not unfrequently, the characters of more than one father, some being black, some differently coloured—clearly proving that they are the result of different conceptions, and consequently of more than one act of the orgasm. In the human subject, moreover, cases have occurred in which a woman has been delivered, at the same birth, of a child conceived of a white, and one of a black parent, proving beyond contradiction that superfecundation does sometimes occur.

As to superfœtation, however, our author thinks, that in a single uterus it is difficult to conceive how it can possibly take place.

"In the first place, the condition of the uterus is so much changed after conception, that the introduction and development of a second ovum is impracticable; and those cases in which a very small and a very large fœtus have been born at the same birth, or when one child has been expelled several weeks after another, must not be received in evidence; since all these circumstances can be much more easily explained by the more rapid development of the one than the other, as is sometimes seen where they are united together, in which case they are unquestionably the product of one conception. In cases of double uterus, however, something of the kind may occur, inasmuch as one part may become impregnated at a different period from the other. But even here it is seldom that more than one uterus becomes impregnated. An interesting example to the contrary, however, is mentioned by P. F. Meckel, of a double uterus, in one side of which was a full grown fœtus, while the other contained another of only four months."

Our author next goes on to describe the development of the fœtus, which he divides, very properly we think, into four stages, or periods. 1st. From the entrance of the ovum into the uterus to the period at which the placenta is formed, or from the beginning of the first, to the end of the third month. 2d. From the formation of the placenta to the time at which the motion of the child is felt, which embraces from the beginning of the fourth, to the end of the fifth month. 3d. From the time at which the motion of the child is felt to the period at which it attains such a degree of development as to enble it, by proper care, in the event of a premature labour taking place, to subsist independently of its connexion with the mother. This period extends from the beginning of the sixth, to the beginning of the eighth month. 4th, and lastly. That stage in which the fœtus attains such a condition as to enable it to survive if separated from the mother—where it has reached its full degree of development——when its external parts can be perceived, and its head, resting upon the brim of the pelvis, can be felt with the tip of the finger in-

troduced per vaginam. This period will, consequently, comprise the whole time between the beginning of the eighth, and the end of the tenth month. This is a very natural division of the time consumed in the process of the development of the fœtus, and is calculated to be of considerable practical importance. It must be borne in mind, however, that in this specification of time, the lunar month, or period of twenty-eight days, is implied.

The human ovum examined during the earliest period of its development, resembles a small membranous vesicle, filled with a clear fluid, about the size of a common pea. Its outer surface is shaggy or flocculent, so as to adapt it to a similar condition of the inner surface of the uterus, with which, at a subsequent period, it becomes united. These are the general characters presented by the human ovum, but when we examine it attentively, we find it composed of several parts, which demand a more particular investigation, inasmuch as each of these seems to fulfil some important part in the development of the future being. Unfortunately, the sentiments of writers are at variance, not only in reference to the precise office of these different parts, but even in relation to the existence of some of the parts themselves. Without pretending to reconcile these conflicting opinions, we shall endeavour to follow the author through the exposition of the sentiments which he has been led, by the result of his own observation, to adopt.

The vesicle, which is separated from the ovaria, may be considered the fundamental part, or element, in which the development of the future being commences. It is a small membranous vesicle filled with an albuminous fluid, called, in the human subject, *vesicula umbilicalis.* It is from this small vesicle that the intestines are formed, and, consequently, these being the parts of the fœtus first developed, it constitutes, as it were, the rudiment of the new organization. The umbilical vesicle, thus constituting the rudiment of the stomach and intestines, is surrounded, as in oviparous animals, by a kind of shell or casement, which, however, in the mammalia, and consequently in the human subject, is membranous, and is called chorion.

The umbilical vesicle, as well as the chorion, is probably coexistent with the development of the ovum, but they both undergo rapid changes, and numerous vessels become developed upon the surface of the chorion, which have been considered by some as veins, extending directly from the embryo, but which should rather be regarded as a plexus of absorbent vessels destined to convey a plastic substance poured out by the uterus. The chorion is not the only part

that undergoes these changes: the umbilical vesicle gives rise to several other parts, amongst which we must mention the proper rudiment of the central part of the nervous system, or vertebral column. This first manifests itself in a kind of folding outwards of its rudiment, but subsequently becomes inflected upon the surface of the vesicle like the "meridian upon a common globe;" to this are united by degrees the parietes of the cranium and pelvis, and, at a still later period, those of the abdomen, and the different parts of the face. These parts at first open in front, all become eventually closed, "in the same manner that an individual, having his cloak drawn round his body, would close it in front."

The relations between the chorion and umbilical vesicle have been pointed out: a repetition of the same thing takes place between the latter and a second membrane, of a thin transparent character, destitute of blood-vessels, called amnion. This membrane constitutes one of the envelops of the fœtus, and contains a considerable quantity of a transparent fluid, called liquor amnii. To the parts which have been already enumerated, others are gradually superadded, which owe their origin to an extension of the development already commenced in the newly-formed appendages of the *vesicula umbilicalis.* On the part of the system of animal life, these are the organs of motion, (the bones and muscles,) and the organs of sense. While on the part of the system of nutrition and reproduction, they are the instruments of respiration, secretion, excretion, and generation. While these changes are going forward, an intimate connexion becomes established between the vascular system of the fœtus and that of the mother, by the vessels of the former ramifying extensively in the fundus of the uterus, and giving rise to the umbilical cord and the placenta.

II. *Physiological History of Labour.*—The circumstances which necessarily determine the occurrence of labour at the expiration of the term of utero-gestation, have been considered under the head of general gynæcology, so that we have only to examine the subject now as connected with the final objects of labour.

These may be considered as twofold:—1st. The expulsion of the child, and its separation from the source which was instrumental in its development, but which is now no longer necessary for its existence. 2d. The restoration of the mother to the condition in which she was before conception.

Under these heads should be considered, according to Professor Carus—1. The powers by which the labour is accomplished. 2. The

general considerations which regard the expulsion of the new offspring: and 3. The special consideration of the passage of the child through the pelvis of the mother. This division of the subject is calculated to be useful in practice, because, by attending to it the mind is made to perceive more clearly what is to be left to nature, and what to be accomplished by art.

1. *The powers by which Delivery is accomplished.*—It is necessary, moreover, in considering the powers by which the child is delivered, to distinguish between those which appertain to the genital organs, especially the uterus, and those which belong to the general system.

The powers which reside in the uterus are extraordinary, as well on account of their great efficiency, as the curious fact, that under the natural co-operation of circumstances, they are not called into action, until the arrival of that particular period, at which the fœtus has attained its perfect development, and is capable of subsisting upon its own resources.

"To enable us," says the author, "to comprehend the powers of the uterus, it is necessary to remember its intestine-like conformation, and structure, in virtue of which, it performs an action altogether similar to that which we observe in the intestines. There is, in the uterus, as well as in the intestinal tube, a kind of alternate action, between the longitudinal and circular fibres, the former contracting and shortening themselves, while the latter remain in a passive condition."

This propulsive faculty of the uterus is, indeed, so powerful, that it often continues, even after the death of the mother. A singular instance, confirmatory of the truth of this assertion, is detailed by Ebel, in Hufeland's Journal der Prakt. Heilkund. 1822.

"A woman, aged thirty years, died undelivered, at the full term of utero-gestation, and was buried at the expiration of three days. But, some doubt arising as to the cause of her death, the body was exhumated, and the child found lying between her thighs."

The contractions of the uterus, called labour pains, should be considered in reference to their causes, character, periodicity, the suffering they occasion, their object, and the circumstances which serve to distinguish them—upon each of these points, Professor Carus makes some remarks; but as they possess no particular practical interest, we shall pass them over: we will merely mention the characters, by which the true labour pains may be distinguished from those which are anomalous, or false—These are:—

"1. Their periodical recurrence. 2. The extension of the pains from the region of the uterus to the symphysis pubis. 3. The uterus is contracted into

a hard, rounded ball, during the existence of a pain. 4. The change produced by the contraction of the uterus upon its neck, and vaginal portion. 5. The true pains cannot be subdued by antispasmodics, injections, or any other means. These characters do not appertain to the pains which attend colic, inflammation, or any other condition."

The vagina assists very slightly in the expulsion of the child, and that merely by its elasticity, and the abundant mucous secretion which it pours out.

But besides those powers which are inherent, as it were, in the parts already mentioned, there are others possessed by the general system, which must be taken into the account. These seldom become effective before the os uteri is fully dilated, but after that period, they assist materially in promoting the labour. The parts which are most active in producing this result, are the voluntary muscles, especially those of the abdominal parietes:—the recti muscles, the external and internal oblique, the transversalis, but above all, the diaphragm. Whenever these muscles are called into action, the cavity of the abdomen is diminished in size; the trunk is fixed firmly in a flexed position, and more or less pressure is exercised upon the uterus. The trunk being in this manner fixed, becomes a solid point of support for the extremities:—the individual generally rests her feet upon some fixed point, grasps the nearest object firmly with her hands, and has the head flexed forwards upon the chest—this is usually followed by a full, protracted inspiration, which forces the diaphragm downwards, and thus diminishes still more the capacity of the abdomen, and augments, in a proportionate degree, the pressure upon the uterus. This simultaneous action of the muscles of the abdomen, and confinement of air in the lungs,

"Exercises considerable influence upon the general system;—the pulse becomes frequent, the skin red, and suffused;—a profuse perspiration breaks out, and more or less congestion takes place in the head and chest. The pressure of the diaphragm upon the stomach occasions an evacuation of its contents; and that of the uterus upon the bladder and rectum, an involuntary discharge of urine and fæces. The violent straining, together with the pain, gives rise to a trembling of the extremities, and in some instances to slight convulsions. The patient moans loudly, the mouth and throat are dry and parched, and a general lassitude ensues."

2. *General History of Natural Labour.*—To ensure a natural labour, three circumstances are indispensably necessary: 1. The body of the woman, and especially those parts which are instrumental in the expulsion of the child, must be properly formed. 2. The uterus must have its natural conformation. 3. The fœtus must not only possess its natural development, but must also be natural, as regards

volume, situation, and presentation. But notwithstanding all these circumstances are necessary to ensure a natural labour, they may all exist, yet the delivery may, from some cause, be difficult or preternatural.

Our author divides the whole time consumed in a natural labour into five stages, or periods. The first includes the time taken up by the premonitory symptoms of labour, and the obliteration of the neck of the uterus: the second the dilatation of the os tincæ: the third the escape of the waters, and the descent of the presenting part of the child into the vagina. The fourth the delivery of the child: and the fifth the delivery of the after-birth. This division corresponds very well with the different acts of a natural labour, and deserves to be remembered by the accoucheur.

The symptoms which immediately precede labour are, usually, a subsidence of the abdomen, a relaxation of the mouth of the uterus, which readily admits the tip of the finger; a constant, and indomitable desire to pass urine and fæces, augmented vaginal secretion, with relaxation, and great heat of its parietes. To these symptoms may be added slight, transient pains, which are owing to the contraction of the fibres of the uterus. They are designated, from the period at which they make their appearance, precursory pains, (dolores ad partum præsagientes.) They vary in intensity in different constitutions, being in some strong, and almost continuous, and others slight, sometimes scarcely perceptible.

The natural tendency of the augmented mucous secretion—the relaxation of the mouth of the uterus, and of the vagina, and of the contraction of the longitudinal fibres of the former organ, which is principally instrumental in the production of the pain experienced during the first stage, is to dilate the os tincæ.

The slight pains which are experienced during the first stage, gradually increase in violence, and usually recur at intervals of ten, fifteen, or twenty minutes. From their peculiar character, they have been called grinding pains. They seem to be instrumental in opening the mouth of the uterus, which is probably accomplished by the more powerful action of the longitudinal, than of the circular fibres. In this manner, the lips of the uterus are drawn upwards, over the head of the child, the membranes are detached to a small extent from the inner surface of the organ, and a small quantity of blood is then allowed to escape, which, mingling with the mucous secretion, constitutes what is usually called "*Show.*" The time consumed in the second stage of labour, or the dilatation of the os uteri, is extremely

variable, the whole process being, in some cases, completed in six or eight hours, but in others, especially in individuals who are advanced in years, at the period of their first labour, requiring fifteen, twenty, or thirty hours for its consummation.

The os tincæ being thus dilated, the membranes protrude, in form of a rounded pouch, and finally give way, and allow the greater part of the liquor amnii to escape. To this, generally succeeds a temporary pause in the pains, during which, the uterus is contracting, to occupy the space occasioned by the escape of the waters. They soon recur, however, with increased energy; the contraction of the longitudinal fibres tends to draw the lips of the uterus still more over the head of the child: the latter exposed to a considerable extent, but still surrounded by the os tincæ, descends lower into the cavity of the pelvis: the pains assume more of the bearing down character, a general heat of the skin succeeds, alternating with frequent chills, or rigors, and the presenting part finally escapes entirely from the mouth of the uterus, and becomes fairly engaged in the vagina. It is at this latter period, that the child sometimes begins to breathe, and according to the report of Zitterland, (Hufeland's Journal, 1823,) in some instances, cries so loudly as to be distinctly heard by all who are present. This occurrence, however, Professor Carus considers, must be exceedingly rare, since out of about four thousand births, he has never met with it.

After the head has escaped from the uterus, a momentary pause ensues, similar to that which succeeds the escape of the waters. The pains, however, are soon renewed; the vertex becomes engaged between the labia, and is in most cases, expelled by the agency of a few effective pains, accompanied by a violent effort on the part of the mother, and a general commotion of the whole system. In a short time, the body of the child is delivered, and the remainder of the liquor amnii, which was confined between the body of the child and the surface of the uterus, escapes. This stage of labour generally occupies, in those who have previously borne children, from half an hour, to an hour and a half, and in some cases a much longer period.

In a number of instances, the delivery of the child is followed immediately by that of the placenta. But in most cases, an interval of variable duration takes place between the one and the other. This may be owing to the firm adhesion of the placenta; to a kind of pause, or suspension of the efficiency of the uterine fibres; to their irregular contraction, &c. During this period, a rounded tumour,

about as large as the head of the child can be felt above the symphysis pubis, consisting of the uterus containing the placenta within its cavity. After this pause, a few active pains supervene, which expels the secundines, and with them, a few ounces of blood.

The process by which the placenta is detached from the surface of the uterus is easily understood. In proportion as the fibres of the latter contract, its surface becomes diminished, while that of the placenta remains stationary, and the two corresponding surfaces being thus rendered of unequal extent, the delicate attachments between them are broken up, and the placenta is finally separated, and thrown off.

We have thus endeavoured to condense the author's description of the general phenomena of a natural labour, as they occur in the five stages into which he has divided the process. While it presents a very good exposition of the most striking acts of the parturient state, it does not furnish us with any thing new, or deserving particular comment. We shall, therefore, pass on to the consideration of the mechanism by which the child passes through the cavity of the pelvis.

It is scarcely necessary to observe that the child may pass through the pelvis, either with the head or lower extremities presenting, thus laying the foundation for the division of labours into two orders, which are again subdivided, according as the head, the face, the feet, knees, breech, &c. present. Delivery may take place under any of these circumstances, without the assistance of art, yet head presentations are by far the safest, both for the mother and child.

But whether the one or the other of these parts present, the mechanism of the passage of the child through the pelvis, may, according to the author, be reduced to the following rules:—

"1. The presenting part of the child must pass through the transverse diameter of the greater pelvis to the upper opening of the lesser, which it must enter in the direction of the axis of Levret. 2. The greatest diameter of the head must enter the superior axis in the direction of its greatest diameter. 3. The presenting part of the child, as soon as it has become fairly engaged within the cavity of the pelvis, performs a revolution of the eighth of a circle, in consequence of its coming in contact with the inclined plane presented by the inner side of that cavity, and not from the influence of the spiral fibres of the uterus, as was supposed by Schweighauser. 4. The presenting part of the child, having its long diameter in this manner brought to correspond with the antero-posterior diameter of the pelvis, remains in that direction during its escape through the os externum, because the recession of the os coccygis backwards, makes this the longest diameter of the outlet of the pelvis. 5. The long diameter of the presenting part must pass along the axis of the pelvis. 6. The

more the head is folded upon the chest, the thighs upon the abdomen, and the arms upon the breast, the greater the inclination of the back of the child towards the pubis, and the more the umbilical cord is placed out of the way of pressure, the more safely will the labour be accomplished."

I. *Class of Labours.—Head Presentations.*—Turning our attention more particularly to the subject of labours, we find the first class, or those in which the head is the part that presents, divided by the author into two orders, according as the anterior or posterior part of the head presents. The first order, or presentation of the occiput, is divided into four presentations, corresponding to the first, second, fourth, and fifth of Baudelocque, the third and sixth of that author being rejected by Professor Carus, as they have been by Capuron, and several other accoucheurs who have written since the time of Baudelocque. The following arguments in favour of the propriety of this rejection, have been urged by Capuron.*

"1st. The presentations in question are exceedingly rare. 2d. Because, during labour, the rounded projection of the sacral protuberances will not allow either the vertex or forehead, also rounded, to remain long in the same situation, but inclines the head to one side or the other, and brings it to one of the four presentations. 3d. Because the labour is never natural where one of these presentations exists, unless the pelvis should be unusually capacious or the head of the child preternaturally small. 4th. Because, when under such circumstances the case presents any difficulty, we are always obliged to change the position to some other."

These arguments we consider very satisfactory. We shall not, therefore, dwell upon the subject, but pass on to the consideration of the second order of labours, or those in which the forehead presents.

The synciput, like the vertex, may present in four different positions, corresponding, in the main, as regards the direction of the body of the child, with the four occipital presentations above alluded to, from which indeed they are said by the author to differ only in the greater separation of the chin of the child from the breast; cases of this kind are very rare, and always render the labour more difficult.

The third order of labours, according to the arrangement laid down, includes those cases in which the face presents. In labours of this order, the chin of the child is separated still more from the chest, and the head is, consequently, thrown much more backwards. But notwithstanding such a position tends to retard the

* Traité d'Accouchemens, Paris, 1824, p. 220.

progress of the labour, delivery may be accomplished, when it exists, as well as under the circumstances detailed above, by the unassisted efforts of nature. For this reason it is, that all the presentations of the head have been considered as coming properly within the class of natural labours. The several varieties of the presentations of the face are referable to the same type as those of the forehead and occiput, and do not require to be particularly designated.

II. *Labours in which some of the Inferior parts of the Body present.*—The different forms of labour which fall under this class are considered as natural, although they are always completed with much more risk to the child. They are divided into three orders, according as the feet, the knees, or the breech presents; and each of these parts may exhibit four varieties or presentations, similar to those pointed out above, as characterizing the presentations of the head and face. This being the case, it is unnecessary that we should describe these particularly; nor do we propose to say any thing relative to the management of the different forms of labour which have been mentioned, as the rules laid down by our author, do not differ in any important particular from those usually inculcated.

III. *Physiological History of the Puerperal State, or Period of Lying-in.*—We have already considered the several changes which attend the act of conception, the development of the fœtus, and its final expulsion from the cavity of the uterus, to be thrown upon its own resources, and commence, as it were, a new existence. We have still to examine the peculiarities of the child-bed state, together with those which appertain to the period of nursing.

In entering upon this part of our subject, we are met by several important subjects of consideration, which we shall endeavour to examine in the order pursued by our author.

These peculiarities consist in certain changes taking place either in the system of the woman generally, or in some of its parts.

1. *Of the Changes which take place in the Sexual Organs.—a. Uterus.* Of all the organs in which these changes occur, the uterus, perhaps is affected in the greatest degree. From the time at which the expulsion of its contents is accomplished, a rapid diminution of volume takes place, and at the expiration of twenty-four or forty-eight hours, it does not measure more than about six inches in length by four in breadth, and can only be felt projecting slightly above the level of the symphysis pubis, in form of a small rounded ball. Still continuing to diminish, at the expiration of from four to six weeks, it will be generally found to have returned to the condition

which is natural to it in the unimpregnated state. With regard, however, to the promptitude with which this contraction and diminution of the volume of the uterus takes place, much will depend upon the number of children the woman has borne, the elasticity of the organ being always greater, after the first child, than at a subsequent period, and it will, consequently, resume more rapidly its natural state. Professor Carus does not ascribe this diminution of volume merely to the contraction of the organ, but also to an absolute diminution of its substance, which he considers is augmented during the period of gestation. Upon this point he is unquestionably correct, though some accoucheurs of distinction have advocated a contrary opinion.

The outer configuration of the uterus undergoes changes not less considerable. Immediately after delivery it becomes more flattened, and the vaginal portion gradually becomes more prominent, so that, at the expiration of ten or twelve days, it usually measures about the fourth of an inch, and still continuing to increase, at the end of six weeks it generally measures about three-fourths of an inch, and finally resumes the condition it presented before conception.

While these changes are taking place externally, the inner surface of the uterus is undergoing others still more striking. For some time after the delivery of the child, and the detachment of the placenta, numerous small veins open by patulous mouths upon the inner surface of the organ, from which a reddish-coloured fluid is constantly poured out, which is designated red lochia. In proportion, however, as the uterus contracts, these orifices diminish in size, and the sanguineous character of the fluid becomes changed into a kind of serous fluid, tinged of a reddish colour, similar to water in which fresh meat has been washed, constituting what is called serous lochia. The same causes continuing to operate, the discharge finally becomes colourless, and assumes more of the mucous character, and is hence designated white lochia, which continues in most cases until the end of the fourth or fifth week, or even longer, and finally disappears.

Professor Carus makes an observation upon this subject, the truth of which our own experience has fully confirmed—that those women who do not nurse their offspring, generally have the lochial discharge much more profuse than those who do. The reason of this is, that nature adopts this means of throwing off those nutrient materials which, during utero-gestation, were expended upon the growth and development of the fœtus, and which, after delivery, should be still subservient to its nourishment, in form of milk, elaborated by the mammæ. It is in virtue of the same law, that the woman, when she

does not nurse, generally has a return of her menstrual flux a short time after delivery; whereas, if she were to afford the natural sustenance to her child which it is ordained by nature it should receive, the action of the mammæ would become, as it were, vicarious of that of the uterus, and the secretion of milk would prevent the recurrence of the menstrual flux until several months after delivery.

The action of the uterus presents several phenomena after delivery, which are worthy of observation—as its agency in expelling the fragments of membrane and clots of blood which remain; the contraction or corrugation of its substance, &c. These are sometimes attended with results which are purely mechanical, as is exemplified in the pains which result from the contraction of the uterus upon the substances enumerated above, constituting what are called after-pains. These generally continue longer where an individual has had several children, because the uterus being less elastic than after a first delivery, does not contract with so much promptitude, and consequently takes a longer time to expel its contents, and resume its natural condition. When these contractions are feeble, from a want of energy in the fibres of the uterus, it is not unusual for these pains to continue from six to nine days.

For a short time after delivery, the uterus remains somewhat above the pubis, but it gradually subsides within the pelvis, until its mouth descends even lower than it was before delivery. From the influence of the ligaments, the fundus is thrown more forwards, and the mouth backwards.

C. *The vagina* and external parts present considerable turgescence, and the rugæ of the former are partially or completely effaced. These conditions usually continue until about the end of the third or fourth week, at which time the parts gradually resume their former condition.

The mammæ also undergo a very remarkable change after delivery, manifested by the secretion of milk, which, after it is formed, becomes substituted, as it were, for the materials which were for a time thrown off in form of the lochial discharge. The turgescence of the mammæ, which generally exists to a certain extent during the whole term of pregnancy, now becomes more considerable; a thin watery milk is secreted, which, from its peculiar properties, has been denominated *colostrum*. It resembles at first the liquor amnii which, in the fœtus in utero, occupies the alimentary canal, but it afterwards becomes transformed into a thick, rich milk. This change in the secretions of the mammæ generally takes place about the third or fourth day, and is accompanied with a slight sensation of chilli-

ness, succeeded by considerable heat of the skin, and finally a free perspiration, constituting what is usually called *milk fever.*

The following are the properties which, according to Professor Carus, should characterize good, healthy milk:—

"It is of a fine white colour, inclined somewhat to blue; and when it has been allowed to accumulate for some time, the last portion which is drawn generally presents a shade of yellow. It is thicker than water, so that when a drop is placed upon the thumb nail, it does not flow off, but remains adherent to its surface. When dropped into pure cold water, it does not dissolve uniformly, but the more oily particles float near the surface, while the others subside towards the bottom of the vessel. It is destitute of smell, and is sweet and pleasant to the taste."

To the changes which have been enumerated must be added some which affect the system more generally. During the whole term of utero-gestation the uterus has its vital properties greatly exalted; its blood-vessels become very much enlarged, and its veins are distended with blood. As soon however as the child is delivered, and the uterus contracts, these vessels must return to their natural condition, and the blood which had accumulated in the veins, is consequently thrown suddenly, as it were, upon the general system. This often excites a considerable degree of plethora, determines to other organs, and often proves a cause of serious disease. In the lungs, especially, we often meet with very formidable results arising from this cause. Before delivery the diaphragm is forced upwards, so as to encroach upon these organs, and prevent their full play; but when the distention is removed from the abdomen, their condition becomes changed, so as to admit of their vessels becoming distended by an increased determination of blood; and when the patient is affected with tubercles, we not unfrequently see all the symptoms of phthisis rapidly developed. The skin too often becomes feverish and dry, or covered with a profuse acid perspiration, attended in many cases with an abundant eruption of small miliary papillæ. All these conditions arise from the irregular determinations occasioned by the sudden destruction of the acquired equilibrium of the circulation. To the same cause must be ascribed the development of puerperal fever, in consequence of the onus of the circulation being thrown upon the delicate vessels of the intestines and peritoneum, subsequent to their being deprived of the support afforded by the pregnant uterus.

The changes which the body of the new-born child undergoes compared with its condition before birth.—The most important alterations which takes place in the condition of the child after birth, are

those which have reference to the new circumstances which it has to encounter, and the independent existence which it has to maintain, subsequent to its expulsion from the uterus.

Before birth, the nourishment destined for the sustenance of the fœtus, is pumped up, as it were, by the radicles of numerous vessels, partly from the placenta, and in part, according to some, from the liquor amnii. When, however, the connexions between the fœtus and the mother become broken up, by the detachment of the placenta, and the consequent destruction of its circulation, it can no longer receive a supply of nourishment from this source, and an apparatus becomes necessary to prepare that which it subsequently receives from without, for the important office it has to perform. This apparatus consists of a tortuous tube, which now becomes affected with a kind of peristaltic motion, in virtue of which, the new nourishment, consisting of milk, introduced into it, is gradually moved through it, is thoroughly digested, and its particles are exposed to the mouths of the absorbent vessels, by which they are taken up, and conveyed into the circulation. It is at this period that the peculiar substance called meconium, which accumulates in the alimentary canal during the development of the fœtus, is thrown off, that the stomach becomes gradually distended by the new aliment, and the differences between the several portions of the tube become more fully developed.

The nutritive fluids circulating in the vessels, are conveyed to the lungs, there exposed to the decarbonizing influence of the air, and become more highly animalized—thus giving rise to a difference between the arterial and venous blood, which does not exist in the fœtus. Coexistent with these changes, others take place in the organs themselves. The umbilical arteries and veins become obliterated: the communication previously existing between the right and left side of the heart, through the foramen ovale, is rapidly effaced; the ductus arteriosus is closed, and the heart, at first placed nearly in the middle of the chest, becomes inclined more and more towards the left side, in consequence of the greater magnitude of the right lung. The thyroid and thymus glands are large in proportion to the lungs. The skin passing suddenly from a moist into a dry medium, is irritated by the influence of the atmospheric air, and assumes a red colour, which generally continues until about the fifth or sixth day, when it ends in a kind of desquamation. It, as well as the glands, begin to secrete; saliva is elaborated by the glands which are destined for that office; the bile becomes thick; and the kidneys pour out urine,

which, however, contains at first only a small quantity of phosphoric acid.

The sphere of animal life also presents changes of considerable importance. The eyes are opened, and exposed to the stimulating influence of light—the cavity of the tympanum, occupied by a kind of mucous fluid, gradually becomes empty, by that fluid passing through the Eustachian tube, and the child by degrees becomes conscious of sounds. The skin acquires its tactile power; the nose the faculty of smell; and finally, the tongue becomes sensible to the impression of sapid bodies.

The brain and nerves are, at first, soft, and consequently feeble in their manifestations of power. The former rises and falls synchronously with each act of respiration. Consciousness by degrees shows itself in an obscure movement of the lips, but still a great portion of this infantile existence is spent in sleep. The powers of motion unfold themselves, in proportion as the muscular fibres are invigorated, by their gradual increase of development, and the full establishment of the respiratory process:—and finally, the conjoined operation of this motility and respiration, gives rise to the formation of voice, which at first unintelligible, afterwards acquires all the attributes of artificial language.

These are the principal changes which take place in the economy of the child, immediately after birth. Some of them are accomplished within a short space of time, while others require a longer period for their consummation; and it is for this reason, that so many children perish, while they are passing through the several mutations which have been designated.

"According to recent researches made by QUETELET and LOBATTO, it appears, that out of 20,975 children born within the space of six years, 1044 died within the month—390 in the course of the second month—231 in the third—185 in the fourth—156 in the sixth—162 in the seventh—152 in the eight—140 in the ninth—153 in the tenth—142 in the eleventh—140 in the twelfth—total, 3051. Thus giving a considerable preponderance of mortality, during the earlier months."

In the succeeding chapter, the author makes some very pertinent remarks, relative to the general conduct, and management of women during pregnancy, and immediately before delivery. Through these, we cannot follow him, but will observe, that they embrace the usual precautions for preserving health, preparing the patient in the best possible manner for a prosperous delivery, and nursing her offspring. Nor shall we make any remarks upon the rules which he has laid down to be observed in the management of natural labour.

Pathology and Therapeutics of Labour.—In considering those means which are resorted to by the accoucheur, with a view of accomplishing delivery, we must divide them into those which are preparatory to the accomplishment of that event, and those by which it is effected.

"Of the first, are 1, the artificial dilatation of the mouth of the uterus; 2, the rupture of the membranes; 3, the correction of any mal-position of the child, by turning, or otherwise. To the second must be referred 1, the artificial delivery of the child, without mutilating, or breaking it down; *a*, by extraction by the feet; *b*, by delivering the head, by means of the forceps; 2, delivery of the child by mutilating its body, or breaking down the head, (*Excerebratio, vel perforatio,*) or by breaking down the trunk; 3, extraction of the child, through an artificial opening, or by artificially enlarging those which are natural; *a*, by an incision made through the parietes of the abdomen and uterus, (*Cæsarean section;*) *b*, by incising the parietes of the abdomen alone, (*Gastrotomy;*) *c*, by augmenting the diameter of the pelvis, by separating the symphysis, (*Synchondrotomy.*)

"II. Artificial delivery of the after-birth; *a*, by detaching the placenta from the uterus; *b*, by extraction of the secundines.

"III. Forced delivery, by opening the mouth of the uterus, rupturing the membranes, extracting the child, and detaching and withdrawing the placenta, (l'Accouchement Forcé of the French.")

Before we enter upon the special consideration of these several processes, it will be useful to detail the rules which are laid down by Professor Carus to be observed, in relation to operative obstetrics. These are—

"1. No operation should be undertaken, until we have ascertained, by a careful examination of both the external and internal parts, the precise nature of the difficulty with which we have to contend, and the particular indication to be fulfilled. Nor should the accoucheur trust, under such circumstances, to the report of the midwife, or any other person, but make the examination himself at the time.

"2. No operation should be resorted to, when from previous information, we know that the difficulty is not so great but that it may be overcome by the natural efforts, by the assistance of medicine, or by changing the position of the presenting part.

"3. The accoucheur should consider well the important difficulties which attend his patient during labour, and should not exhibit any wavering doubts, but constantly evince the most lively interest for the well-being of both the mother and child.

"4. The woman should not be delivered by a false prognosis, but the possibility of an unfortunate issue should be candidly stated, both to herself, and those about her. This will be especially necessary when the death of the child is already suspected, or when a midwife or other accoucheur have been in attendance, and there is reason to suppose that either the mother or child have sustained some injury.

"5. When it is possible to accomplish our object by means of the hand, it

should always be preferred to the use of instruments, as it is far less dangerous to the mother; and in the use of instruments, those should be selected which occasion least pain.

"6. Whether we employ the hand or instruments, their temperature should be brought to that of the mother, and before they are introduced they should be carefully oiled.

"7. Delivery should never be attempted when the woman is in 'articulo mortis,' except in those cases in which there is a prospect of doing something for either the mother or child."

Preparatory Measures.—1. *Artificial Opening of the Os Tincæ.*—The mouth of the uterus may be either partially or completely dilated, either by the introduction of the hand or some appropriate instrument. The objects of the operation are various. The mouth of the uterus may become so closed by disease as to render it impracticable for the head of the child to pass without the assistance afforded by an artificial dilatation; it may also become necessary, to enable us to rupture the membranes, turn the child, deliver the after-birth, &c. Great caution, however, is requisite, even under these circumstances, in resorting to such an operation, inasmuch as the application of force to the *os tincæ*, in its rigid and unyielding condition, cannot fail to give rise to mischievous consequences. As a general rule, therefore, we are not to resort to the artificial dilatation of the mouth of the uterus until the parts have become relaxed and yielding. Nothing can be more improper than attempts made to force open the os tincæ, with a view of facilitating the passage of the presenting part of the child.

When we determine upon the performance of the operation, our author recommends several preparatory measures to be resorted to, with a view of putting the parts in a condition to yield more readily. These consist of such means as are calculated to diminish the irritability of the circular fibres of the uterus; as emollient and narcotic injections—a mixture of milk and oil administered by the same process —the same with laudanum, warm bath, the internal use of antispasmodics, as a few drops of tinct. opii with an infusion of valerian, &c. From the efficacy of belladonna in dilating the pupil of the eye, it has been proposed to apply it to the mouth of the uterus, with a view of securing a similar result from the influence of its operation upon that organ. For this purpose, Chaussier employed a wide-mouthed syringe, with which the substance could be applied immediately to the part. Others have recommended, with the same object, the employment of an opiate cerate, the oleo hyoscyami; but it is extremely questionable if any of these applications are more beneficial than those of a simple emollient character.

Having waited until the parts have become soft and yielding, the patient is to be placed in a convenient position, and in such a situation as to relax the muscles as much as possible. The right, or left hand of the accoucheur, according to circumstances, is to be cautiously insinuated, commencing first with the tips of the fingers, and by gentle perseverance, finally introducing the entire hand; always taking care to place the greatest diameter of the hand, in the direction of the greatest diameter of the pelvis.

In some cases, when the muscular fibres are yielding, the hand can be introduced without much difficulty. But frequently we shall be obliged to fatigue the fibres of the uterus by the cautious application of force, until they are made to yield.

When the mouth of the uterus has become partially or completely closed by disease so as to preclude the possibility of the child passing; the only means of relief which can be afforded by the accoucheur, is to open the part to a sufficient extent by means of one or more incisions. These will allow the mouth of the uterus to dilate, and enable us to effect the delivery of the child. Several instruments have been invented for this purpose as Osiander's *Hysterotome*, Coutouly's *Utero-Stomatome*, &c. but a simple bistoury will answer every purpose. It will be useful, however, to use a speculum, so as to protect the surrounding soft parts.

Various means have been invented for the purpose of dilating the mouth of the uterus, in those cases, in which, from previous organic disease, it is not disposed to yield to the pains of labonr. Few of them, however, are calculated to meet the end proposed, inasmuch as they exercise their principal force upon the vagina; while the sponge tent recommended in Siebold's Journal für Geburtshülfe is too tardy in its operation. Were such a procedure justifiable, the forceps of Osiander would be the most convenient instrument for the purpose. We are disposed, however, to doubt the propriety of such an operation, and would enter our protest against it, under all circumstances. We believe that a large bleeding from the arm, as a general remedy, is the best possible *dilator* of the os uteri, as well as that of the vagina.

2. *Rupture of the Membranes.*—The artificial rupture of the membranes is of extensive application in the practice of the obstetrical art. It is not only resorted to when it becomes necessary to turn the child, or to apply the forceps, but also in some cases of hæmorrhage, puerperal convulsions, and likewise when from previous knowledge of the dimensions of the pelvis, we know that it is so much distorted

as not to allow a full-grown fœtus to pass, and where it consequently becomes necessary to induce premature labour at the end of the seventh month, as suggested by KELLY and recommended by DENMAN. We shall not detail the method of performing the operation, as it is so exceedingly simple as to require no particular description. In most cases, the tip of the finger will be the only instrument necessary. But when the mouth of the uterus is not dilated, we may employ a common male catheter, as practised by the English accoucheurs, or a pair of small forceps, as recommended by Wiedemann, Carus, &c. or the instrument of Osiander.

3. *Turning and Delivering by the Feet.*—There is perhaps no part of the obstetric art which deserves a more attentive consideration from the accoucheur than the operation of turning the child. It is not only necessary in all cases in which, from mal-position, the child cannot be delivered by the natural efforts, but also in certain cases of emergency, in which it becomes necessary to accelerate delivery, as in dangerous flooding, violent convulsions, &c. Whether it be resorted to with the one or the other of these intentions, the operation of turning is always fraught with consequences which are serious to the mother, as it not unfrequently becomes a cause of inflammation of the uterus, peritoneum, and other adjoining parts, and may give rise to puerperal fever and many other formidable maladies. Nor is it entirely safe to the child; for it is liable to have its bones broken or dislocated, or to receive other injuries of a serious character. The operation is most easily effected when it is resorted to before the waters have been allowed to escape, where the os tincæ is well dilated, and yielding, and where the woman has borne several children. Under other circumstances it is always attended with much difficulty; and when the waters have already escaped, the uterus is firmly contracted upon the body of the child, and is rigid and irritable, great precaution will be requisite, and the operation cannot be accomplished, except at the expense of great difficulty, and even hazard to the mother.

In resorting to the operation of turning, the preparatory steps are the same as those which are requisite when we wish to dilate the mouth of the uterus. The most convenient position is on the back, with the breech drawn to the edge of the bed, while the head and shoulders are elevated; or a birth-chair may be employed, as is the practice with the Germans.

"1. It is of the greatest importance, before we resort to the operation, to ascertain, by a careful examination, both the position of the child, and the dimensions of the pelvis, as without an acquaintance with the first, we cannot accomplish our end; and any considerable deformity of the pelvis would render

the operation improper. For this purpose, the woman should be examined in different attitudes, so as to make the head of the child descend.

"2. The woman should be informed of the objects and necessity of the operation. But great circumspection should be observed in communicating to her the prognosis.

"3. As in a case of natural labour, the rectum and bladder should be evacuated before the operation is resorted to.

"4. The ordinary apparatus employed in cases of natural labour should be at hand, and in a state of readiness, especially those means which are employed to resuscitate a still-born child. It will be well, moreover, in extraordinary cases, to be provided with a pair of forceps, a couple of Smellie's blunt hooks, and one or more fillets to confine a leg or arm which may present.

"5. In those cases in which the waters have escaped, and the uterus is firmly contracted round the body of the child, it is recommended to endeavour to overcome the force of its contractions, and to subdue inflammation, where it exists, by means of warm, antispasmodic fomentations; flannels wrung out of a decoction of hyosciamus, chamomile flowers or valerian, and applied to the parts; and by administering internally the essence of valerian, in small doses, combined with tinct. opii, or the liq. cornu cervi. When there is great dryness and tenderness of the external parts, mucilaginous injections composed of flaxseed mucilage, oil, &c. may be employed with advantage. Should there be considerable tenderness of the abdomen, hot, dry skin, and other strong evidences of a general febrile condition, it will be proper to resort to the general and local abstraction of blood, and other means of subduing inflammation.

"6. The accoucheur should always determine, from the position of the child, with which hand he can most readily reach the feet. In most cases in which the feet are situated in some part of the fundus of the uterus, that hand will be found most convenient which corresponds to the side on which the feet are supposed to be placed. But where they are only slightly removed from the mouth of the organ, and when the waters have already escaped, either hand may be employed."

Every thing being thus arranged, the hand, previously oiled, is to be cautiously insinuated between the labia pudendi in the direction of the axis of the inferior outlet of the pelvis, the fingers being arranged in a conical position. When the hand is fairly engaged in the vagina, the back should be directed towards the hollow of the sacrum, while, with the tip of the finger, the accoucheur is to rupture the membranes, taking care at the same time that too much of the liquor amnii does not escape—or if sufficient space exists between the amnion and the parts surrounding it, to admit the hand, it will be better to pass it in that direction, until the feet are felt, and to rupture the membranes at that point, and turn the child. In passing up the hand, seizing the feet, and bringing them down, great care should be taken to give the body such a degree of inclination as will bring it to the first or second presentations. In some cases it will

be impracticable to bring down the feet, and we shall be obliged to content ourselves with bringing down the knees, and finishing the labour as in a knee presentation.

When an arm has already protruded, and it becomes necessary to turn, it is recommended by many accoucheurs to confine the presenting part by means of a fillet. Professor Carus very justly objects to this procedure, on the ground, that by confining the arm, we prevent it from returning during the revolution of the child, which he affirms it will do, in a majority of cases, if left at liberty.

4. *Turning the Head.*—From the mechanism of the passage of the head of the child through the pelvis, it must be manifest, that it can only be turned before it has become fairly engaged in the lesser pelvis, when the waters have not escaped, or when they have only been discharged a short time. As, therefore, the operation is of important and extensive application, especially in mal-presentations of the head, of the neck, ear, chest, shoulder, &c. the accoucheur should always be careful to ascertain the nature of the presentation before the labour has advanced so far as to render it impracticable to correct it.

In resorting to this operation, attention should be paid, 1st, to the situation of the patient, so as to place her in a position which will be most likely to favour the accomplishment of our object—when, for instance, the head is inclined to the right side, the woman should be placed on that side, and vice versa, because by doing so, we favour the descent of the head into the pelvis; 2d, when the obliquity of the head prevents it from descending, the finger of the accoucheur should be fixed upon some part of it, so that by properly directed pressure, it may be made to revolve upon its axis, and assume the direction which it does in a case of natural labour. In some cases where the mouth of the uterus is fully dilated, and the waters are not evacuated, if we have a mal-presentation to contend with, the presenting part should be pushed up with the hand, so as to allow the head to descend. This simple procedure will obviate the necessity of bringing down the feet, even in cases where the back presents, as happened in an instance reported by Professor Osiander, (Grundriss der Entbindungskunst, 2 Theil. § 36,) and our author mentions a case in which the breast and one arm presented, yet by pushing them up the head descended, and the child was delivered in the natural way. It is, moreover, in some of the cases under consideration, that the vectis or lever, or even a single blade of the forceps, may be employed in rectifying the presentation of the child. To use the instrument the woman should be placed in the position

already recommended; the index and middle finger should be passed up to serve as a guide, and to protect the soft parts, and the instrument, previously warmed and oiled, held like a writing pen, should be cautiously conducted upon the fingers to the part which it is our object to rectify. When the instrument is fixed upon the head, great caution must be observed in the operating with it, not to make a fulcrum of the soft parts of the mother, but to sustain the force with one hand. In some cases it will be requisite to push up the forehead, or some other part with the finger, while the occiput is brought down with the lever.

Professor Carus enters next upon the consideration of delivery by the feet, and lays down, with great clearness, the rules to be observed in the management of such cases. We cannot follow him through all these, but shall confine ourselves to the part which has reference to the delivery of the head.

In delivering by the feet, the facility with which the head will pass, will depend mainly upon the direction given to the child during the delivery of the shoulders. It should always be the object of the accoucheur to give the body of the child such a turn as will enable the head to enter the pelvis with its long diameter placed in the direction of the long diameter of the pelvis, and after it has entered that cavity, to allow it to revolve upon its own axis, in such a manner as will bring the occiput behind the pubis, while the forehead is directed to the hollow of the sacrum. This much accomplished,

"The accoucheur supports the body of the child upon his arm, the hand of which was employed in supporting the perinæum during the passage of the shoulders, and introduces two fingers of the same into the vagina, which he fixes upon the chin, in such a manner as to depress it upon the breast; and elevating at the same moment the body of the child, he enables the long diameter of the head to pass out in the direction of the axis of the inferior strait.

"If from the difficulties of the case, the head cannot be delivered by this manipulation, and it has already descended into the pelvis, the forceps must be promptly applied, inasmuch as if the head be allowed to remain in that situation for only the space of five or ten minutes, the life of the child will be lost. Should, however, the head be still too high to admit of the application of the forceps, or should there exist indubitable evidence of the death of the child, the index finger of the accoucheur, or the blunt hook of Smellie, should be introduced into the mouth of the child, and the head thus delivered. This procedure must not be adopted, however, when the child is still alive.

"When, from neglect, or mismanagement, the head presents in such a manner, that the chin is placed above the symphysis pubis, and the occiput against the sacral protuberance, the head cannot be easily delivered, and if suffered to remain, the life of the child will be inevitably lost in consequence of the com-

pression of the cord. The long diameter of the head being five inches, and the conjugate diameter of the pelvis four, it follows, that delivery cannot be accomplished, except by changing the relative condition of the presentation, so as to make the long diameter of the head correspond with the long diameter of the pelvis. To accomplish this, the accoucheur should examine to which side the head may be inclined with the greatest facility, and incline the chin in that direction, by the application of the finger to some part of the head. The body of the child should be entrusted to an assistant; the index and middle finger introduced into the vagina, should be fixed upon the upper jaw, or when the child is dead, in the mouth, and the face should, in this manner, be inclined to one side, so that the head may be delivered in the manner directed above.

"When circumstances are still more unfavourable, and the head of the child has been severed from the trunk, and remains in the cavity of the pelvis, its delivery must be accomplished, either by the application of the forceps, or the introduction of a blunt hook into the foramen magnum, by introducing the finger into the mouth, or when all these fail, by breaking down the head."

Delivery of the Head of the Child, by the application of the Forceps.—It has been supposed, that forceps similar to those employed in the practice of midwifery, were known to Avicenna. It is questionable, however, whether the instrument described by him was not of a different kind, and employed for different purposes. The probability is, that the midwifery forceps were first invented by the Chamberlains, about the end of the seventeenth century. Since that time, they have been much employed, and have undergone various modifications, to suit the whim of particular individuals. At present, the forceps employed may be referred, for the most part, to three heads: the short, the long, and the forceps with unequal blades. The following properties, according to our author, should be possessed by the forceps which we employ in the practice of midwifery. 1. They should be constructed of the best steel, and should be of the best possible workmanship, finely polished, and perfectly free from every thing which could injure either mother or child. 2. The blades should have a curve to correspond with the convexity of the child's head, and when closed, should have a space between them, at the point at which they are furthest removed from each other, of about two and a half inches, and the ends where the forceps are closed, should be separated from one-fourth to one-third of an inch. 3. They should also have a curve to correspond with the outlet of the pelvis, and should be long enough to reach to the upper part of the small pelvis. Thus the height of the pelvis being four inches and a half, and the long diameter of the head of the child entering it in the direction of the axis of the superior strait, it follows that the forceps must be long enough to embrace the head before it has fully descended into the pelvis, and consequently, that the blades should

be *ten* inches in length. Professor Carus employs forceps, the blades of which are of the length here designated, but in some few cases he uses others, the blades of which are from an inch, to an inch and a half longer.

"4. The instrument should be light, and so constructed as to render it of convenient employment, so as to enable the accoucheur to follow every motion of the child's head, and to prevent them from slipping. 5. The lock, in the one blade, should be so constructed as to accurately embrace the other, and to admit of their being easily adjusted or separated. These properties are possessed by the lock of Smellie's forceps, when properly constructed. 6. The blades of the forceps, as well with a view to diminish their weight, as to admit of their easy application to the head of the child, should each present an oblong fenestrum, extending in a longitudinal direction. 7. The handles should be so formed, as to enable the accoucheur to maintain a firm and fixed hold upon them; and to avoid the inconvenience of steel handles, they may be covered with leather as far as the lock, as is the case with the forceps of Boer. 8. The length of the handles should not exceed what is merely sufficient to enable them to be handled conveniently, which will be about five inches and a half. A greater length than this, will render them inconvenient."

We are next to consider the circumstances which call for the employment of the forceps. According to Professor Carus,

"*They are called for in all cases, in which, in consequence of some fault, either on the part of the mother or child, or both at the same time, a prompt delivery of the child, and especially its head is necessary, and when this last has descended low enough in the pelvis, and is placed in such a position as to enable the labour to be accomplished by means of the forceps, without injuring either the mother or the child.*"

There are several circumstances which render the application of the forceps necessary; as alarming hæmorrhage, convulsions, pressure upon the cord, inefficiency of the labour pains, inflammation of the parts from pressure, slight contraction of the pelvis, a general enfeebled state of the mother, or child, &c.

Before the forceps can be applied, the head must be partially or completely engaged within the cavity of the pelvis, otherwise we cannot secure it, even with the long forceps, because, as our author correctly observes, the situation of the head above the pelvis, does not correspond with the line of the axis of its superior strait, and in some cases it even projects considerably beyond the linea ileo-pectinea. If therefore, under these circumstances, the position of the head cannot be so changed as to enable the head to enter the superior strait, the forceps cannot be applied, and the child must be turned, and delivered by the feet, if the circumstances of the case call for prompt interference.

The following conditions are laid down by the author as contraindicating the employment of the forceps.

"1. When the mouth of the uterus is not dilated. 2. When the membranes are not ruptured. 3. When the head is not engaged in the pelvis. 4. When a disproportion exists between the size of the child's head and the diameter of the pelvis, whether this depends upon an inordinate enlargement of the head from hydrocephalus or other causes, or where there is so great a distortion of the pelvis as to render it impossible to deliver except by breaking down the head. 5. When the head is inordinately small, as in cases of premature labour, or when it has been rendered so by artificial means.

"The prognosis, in forceps cases, is generally favourable, as regards both mother and child. 1. In proportion as the danger is not urgent which renders their employment necessary. 2. When the pelvis is well-formed. 3. When the head has descended low in the pelvis. The operation is more difficult and the prognosis less favourable, 1. When the pelvis is very narrow. 2. Where the presentation of the head is not natural. 3. Where the breech presents. 4. When some other part of the child, especially the umbilical cord, descends with the head. 5. When the labour has been protracted. And 6. Where the case is attended with other dangerous complications, as hæmorrhage, convultions, inflammations, &c."

When it becomes necessary to resort to the application of the forceps, all the usual apparatus which is employed in a case of labour, should be at hand; the rectum and bladder should be previously evacuated, the woman placed in a convenient position upon her back, and the forceps warmed and carefully oiled.

"The accoucheur introduces the index and middle fingers of his right hand, previously oiled, into the vagina, until he reaches the head of the child, while with the left hand, he takes the female blade of the forceps, which he holds like a writing pen, and conducts it upon the two fingers of the right hand into the vagina and uterus, until it passes so far upon the head of the child, that the curvature of the blade can adapt itself accurately to the curvature of the head, and have a fixed point of support in the direction of the axis of the pelvis. The woman should, during this procedure, remain perfectly tranquil, should not encourage the pains, and when they do come on, the accoucheur should wait until they subside.

"The female blade being in this manner introduced and fixed upon the head, is to be confided to an assistant, while the accoucheur proceeds to introduce the male blade of the instrument. To accomplish this, it is to be taken in the right hand, in the position above pointed out, while the two first fingers of the left hand, well oiled, are to be passed into the vagina up to the left side of the pelvis, until they are fixed upon the head of the child, and upon them the instrument is to be passed up, as already directed, until the curvature of the blade becomes fixed upon the head. It is then to be placed in the direction of the head, corresponding with that in which the first was placed, and the two carefully adjusted by adapting the locks with each other. Having fixed them properly in this manner, the accoucheur proceeds to deliver, by attending to the

usual rules of applying the force in the direction of the axis of the strait of the pelvis, through which the head is passing, allowing the instrument to follow the several evolutions performed by the head during its passage, to guard against the slipping of the forceps by using a kind of zigzag motion, in a direction to answer to that in which they are applied, and finally, supporting the perinæum."

Perforation of the Head, and evacuating the Brain, (Perforatio, Excerebratio.)—In some unfortunate cases, in consequence of a considerable disproportion between the size of the head and the dimensions of the pelvis, it will be impossible to deliver by any of the procedures which have been pointed out, and it becomes a question about saving the mother, either by diminishing the volume of the head by means of cutting instruments, or extracting the child by the Cæsarean operation. But as the Cæsarean section is always attended with great hazard to the mother, and as in cases where the child is already dead, it may be delivered by diminishing its volume, and without endangering the mother, it is preferable, under these circumstances, to resort to the operation of perforating the head, provided the diameter of the pelvis is large enough to allow the child to pass after this mutilation. It is true that some accoucheurs have allowed the operation in question a much wider range; and Osborn even went so far as to recommend, that in all cases in which the conjugate diameter of the pelvis is not more than an inch and a half, delivery should be effected by the crotchet, even at the expense of the life of the child. Such a practice, although supported by such good authority, cannot fail to strike every feeling mind with horror, and every friend to human nature must lament the direful consequences to which it has given rise. True it is, that when it becomes necessary to sacrifice the life of either the mother or child, there can be but little difficulty in deciding which should be preserved, yet the head of a living child is not to be broken down, and mutilated, while it is struggling with agony, under the influence of our instruments. The indications which call for the perforation of the cranium are, according to our author, the following:—

"Where the disproportion between the volume of the head and the dimensions of the pelvis is so great, that the former cannot pass through the latter, without being diminished in size, or without endangering the life of the mother."

With regard to the time at which it should be performed much will depend upon the nature of the cause which renders it necessary. Where, for instance, the difficulty consists of an accumulation of water within the head, and is of a nature not to be overcome by any

other means, as soon as the mouth of the uterus has become dilated, and the waters are discharged, so as to fix the head, the water may be let out by means of a trocar. But when we have a distorted pelvis to contend with, the operation must be deferred, according to our author, until, from the nature of the circumstances, we are well assured of the death of the child. Nor are we to resort to it even under these conditions, until we are convinced that the child cannot be delivered by the hand or the assistance of the forceps. It is fortunately an operation but seldom called for; so much so indeed, that Professor Carus observes it was only indispensable in one instance out of one thousand births at Dresden. For the method of performing it we must refer to the ordinary elementary works on midwifery, as the details contained in the work before us, do not present any thing which is not to be found in them.

Our author next goes on to the consideration of the Cæsarean operation, synchondrotomy, forced delivery, &c. upon each of which his remarks are valuable, though they present nothing of novelty. The same is true of the remaining part of the work, devoted to the consideration of the special pathology and therapeutics of labour. As, therefore, it is extremely difficult to render an analysis of a work like the present, which is purely elementary, interesting to the majority of readers, and as we have already reached our limits, we shall be obliged to forego the pleasure of making any further remarks upon the subject.

We cannot, however, take leave of the subject, without expressing the high degree of pleasure which we have experienced in the perusal of the work under consideration. While we are free to confess that we consider the arrangement somewhat confused, we must do the author the justice to state, that as an elementary treatise on gynæcology, we consider his work possesses a high degree of merit, and is well adapted to the wants of the class of individuals for whom it was especially intended. Nor are we singular in this opinion, as the public voice has already spoken so favourably of it, that it has, in the space of a short time, passed through two editions.

E. G.

BIBLIOGRAPHICAL NOTICES.

XVIII. *Die Krankheiten des Gehœrorganes. Ein Handbuch zum Gebrauche seiner Vorlesungen.* Von KARL JOSEPH BECK, der Arzneiwissenschaft Doctor, Ordentlichen Professor an der hohen Schule in Freiburg, und mehrerer Gelehrten Gesellschaften Mitgleide. Heidelberg und Leipzig, 1827.

Manual of Diseases of the Ear, &c. By KARL JOS. BECK, Doctor of Surgery, &c. 1827.

The diseases of the ear, though always constituting an important item in the catalogue of human maladies, have only within a short time attracted any considerable share of attention. True it is, that we have some remarks upon these diseases, even as far back as the earliest periods of the science, yet they contain but little that is important or interesting, and it is only within the last century, and especially within the last twenty years, that much valuable matter has been collected relative to these subjects. In the task of investigating the diseases of the ear, several modern authors have distinguished themselves, and rendered an important service to the science. Amongst others, we must mention, as deserving particular commendation, Lecheven, Itard, and Saissy, in France; Saunders and Curtis, in England; and in Germany, Albrecht, Van der Hoeven, Ehrharter, &c. to which may now be added Professor Beck, the author of the work under consideration. This does not pretend to be an elaborate treatise upon the subjects which it embraces, but merely a Handbook, or manual, intended, principally, for the use of students, while attending lectures.

The whole work is divided into three books, the first of which comprises the technical, the second the pathological, and the third the nosological parts of the subject.

The author, under the first of these divisions, makes a few brief remarks upon the general structure and arrangement of the organ, which, however, are too superficial to be of much utility. He then goes on to consider the usual remedies employed in the treatment of diseases of the ear, which he divides, according as they act upon the systems of animal or organic life, and according as they exalt or diminish the powers of the organs of which these systems are composed. These agents are employed in different forms, some of them being applied to the part in form of salves, or ointments, while others are used in a fluid state, as in injections, &c.

"Injections," observes the author, "may be thrown into the ear through three different channels; from the fauces through the Eustachian tube, through a puncture made in the membrana tympani, or a perforation made in the mastoid process of the temporal bone."

Each of these may be employed under certain circumstances, but the last, although practised with success by Jasser, a Swedish surgeon, and recommended by Hagstroem, Arneman, &c. should, we think, be resorted to with great

caution. Berger, physician to the court of Denmark, fell a victim to its employment, in consequence of the inflammation extending to the brain and its meninges. The two other plans, however, may be resorted to with perfect safety and great advantage. Many cases of deafness depend on an obstruction of the Eustachian tube which only has to be removed, to restore the faculty of hearing. M. Deleau of Paris, even succeeded, by this simple procedure, in imparting the power of hearing and speech to a child who had been deaf and dumb from birth.*

Our author details the plans adopted by Itard and Saissy, in performing this operation, but subjoins, that he had never employed the forehead piece or the forceps of the former. For the silver tube he substitutes a small gum elastic catheter, provided with a small metallic stilet, so as to direct the point of the instrument into the orifice of the Eustachian tube.

Amongst the means employed in the treatment of diseases of the ear, must be placed blisters, setons and issues, cautery, both actual and potential, electricity, galvanism, &c. all of which are valuable under particular circumstances.

The next chapter is devoted to the consideration of the operations which are usually employed in diseases of the ear, as the perforation of the membrana tympani, either with a view of transmitting air into the cavity of the same name, where the Eustachian tube is obstructed, or to enable us to wash out matter or blood from the internal ear, or apply medicated substances to that cavity; perforation of the mastoid process, boring the ears to prepare them for the insertion of ornaments, or for some other purpose, or the formation of an ear, when that organ is deficient, either from defect of development, or in consequence of accident or disease. This has been called the otoplastic operation, for the same reason that one performed on the nose, for the same purpose, is called rhinoplastic.

We have next an exposition of the principles which should be observed in the selection and adaptation of artificial means of remedying the defects of hearing, as artificial ears, ear shells, ear trumpets, &c. These become necessary in those cases in which the receptivity of the auditory nerve is so much diminished as to render it insensible to the impression of ordinary sounds. They should, therefore, be constructed in such a manner, as to concentrate the force of the sounds in the greatest possible degree, without detracting from their clearness, or altering their proper characters.

The second book, we have already stated, embraces the consideration of the pathological part of the work. It is divided into pathogenic and pathological anatomy, the one having for its object the general consideration of the causes and characters of the diseases of the ear; the other the description of the particular lesions to which the organ is exposed. In describing the pathological anatomy of the ear, the author considers the lesions according as they affect,

"1st, the external ear; 2d, the external meatus; 3d, the membrana tympani; 4th, the cavity of the tympanum, the mastoid cells, the bones of the ear, and the muscles by which they are moved; 5th, the Eustachian tube; 6th, the labyrinth; and 7th, the auditory nerve."

It will be readily seen, that by adopting this plan the lesions of the ear can

* Magendie, Journal de Physiologie.

be described in a very natural order, as they are considered in direct relation with the different portions of the organ with which they are concerned.

The third, and last book, is devoted to the nosological considerations which appertain to diseases of the ear. These diseases are here divided by the author into two classes—vital or dynamic, and mechanical. Under the first he makes the following divisions:—

"1. Diseases of the plastic apparatus. 2. Diseases of the irritable apparatus: and 3. Diseases of the apparatus of sensation."

The diseases of the plastic apparatus are arranged under the several heads of inflammation, defective or augmented secretion, augmented nutrition, defective and perverted nutrition, and new developments or products.

The second division embraces the subjects of spasms and paralysis; and the third, those of pains, and perverted or altered sensation.

The second class of diseases of the ear, or those which depend upon mechanical causes, is divided into abnormal adhesions, abnormal separations, and foreign bodies.

We regret that we cannot follow the author through the interesting details which fall under each of these subdivisions of his subject, especially as we have been much pleased with the perusal of his book, and feel assured, that our readers could not but be gratified with a fuller exposition of the valuable materials of which it is composed. We consider the work well adapted to the wants of the junior part of the profession, and can confidently recommend it even to the more experienced, as abounding with good pathological principles, and correct practical precepts. E. G.

XIX. *Traité des Maladies des Voies Urinaires.* Par CHOPART, Professeur aux Ecoles de Chirurgie, Chirurgien en Chef de l'Hospice du Collège de Chirurgie de Paris, etc. Nouvelle édition, revue, corrigée, augmentée de notes et d'un Mémoire sur les Pierres de la vessie et sur la Lithotomie; Par M. E. H. Felix-Pascal, Docteur en Mede. de la Faculté de Paris, etc. Vols. 2. Oct. pp. 948. Paris, 1830.

These volumes present a very elaborate account of the urinary organs, considered both in their healthy and morbid conditions. They are consequently a valuable source of reference, but in these times, an author who writes so voluminously, can scarcely flatter himself that his work will meet with a general or regular perusal. Under the head of vices of the urinary secretion, M. Chopart treats of the increase, diminution, suppression and changes in its natural qualities. With respect to diabetes, which of course is ranged under this head, he leaves us to infer, that its treatment was not as yet conducted upon any well-founded principles. The indications of cure he says, consist in diminishing the unnatural dilatation and relaxation of the urinary vessels of the kidneys, diverting the course of the chylous and lymphatic matter directed there so abundantly, restoring the transpiration and others excretions, keeping the bowels open, procuring the perfect digestion of the aliments, and removing the foreign bodies that may be found in the urinary organs, which complicate and maintain the diabetic condition. The first indication is to be fulfilled by prescribing, as an ordinary drink, barley or rice water, lime water mixed with

a third part of milk; at other times, an infusion of sage or mint, or water slightly acidulated with sulphuric acid. The aliments should consist of mucilaginous vegetables, rice, sago, vermicelli; and milk oftener than broths, eggs, or fish. The patient should take moderate exercise, expose himself to the sun, avoid cold, wear flannel next the skin, be rubbed every evening, use the bath as often as his strength will allow, and take every day, six or eight grains of rhubarb to keep the bowels open. Should there be no diminution of the disease, a glass of whey with eight or ten grains of alum may be given, or the wine of quinquina, or the bark itself in powder, in the dose of a drachm, in a glass of claret. A large plaster of theriac, betony, or other topical roborant may be applied over the lumbar region. Following these instructions, we have without any comment, an editorial note, setting forth upon high authority, a course of treatment, which must be founded upon pathological views directly opposite to those held by M. Chopart. The editor writes as follows. —Convinced that diabetes consists essentially in a defective animalization of the alimentary substances submitted to the digestive process, MM. Dupuytren and Thenard have thought with MM. Rollo, Nicholas, and Guendeville, that the most efficacious remedy against this disease is a regimen exclusively animal. These authors in fact, without any other treatment than this regimen, have succeeded in curing their patients. MM. Nicholas and Guendeville, have conjoined the use of some medicines, and their practice has been crowned with equal success. The diet alluded to, consists of good soup of beef or mutton, with meats of the same kind, as also bacon, puddings of blood or fat, meats kept until slightly tainted or rancid, with pure and generous wine at repasts, which should always be taken at regular hours. Wine diluted with water, may be drank between meals to assuage thirst. The only vegetable aliment permitted, is bread of unmixed wheat flour.

The medical treatment which MM. Nicholas and Guendeville have conjoined to this regimen, consists in the employment of two grains of the watery extract of opium, in combination with powdered red bark, administered three times a day, namely, morning, noon, and night; two drachms of the phosphate of soda in a pint of whey, for the purpose of removing constipation, and as an ordinary drink, pure water with six or eight drops of liquid ammonia in each glass, or the phosphorous acid in the proportion of thirty or forty drops per bottle, and finally frictions externally with lard or other animal fat.

Thus the apparently simple course of treatment laid down by our author, is not a little perplexed by the entirely opposite plan, supported by no less authority than Dupuytren and others of the greatest eminence. Which is the most rational we shall not at present take upon ourselves to decide.

The author next treats of various affections of the urinary passages, accordingly as they are seated in the kidneys, the ureters, the bladder, and urethra. Among those of the kidneys he embraces vices of conformation, disposition and size, anomalous tumours, wounds, inflammation, cancer, worms, hydatids, &c. But we cannot perceive by what propriety or consistency he treats under this head, of lumbago, and of concretions found in different parts of the body, as for instance, ossifications of the dura mater, concretions in the stomach, intestines, liver, &c.

G. E.

XX. *Handbuch der Anatomie des Menschlichen Körpers mit Abbildungen.* Von Martin Muenz, Doct. der Medizin und Chirurgie, bey der ausübendem Arzte, öffentlichem ordentlichen Professor der Anatomie und Physiologie an der Ludwigs-Maximilians-Universität zu Landshut, &c. Erster Theil, Muskellehre, Landshut, 1821. Zweyter Theil, Gefäss-lehre, 1821. Dritter Theil, Eingeweid-lehre, 1827.

The work before us consists of three volumes, folio, of plates, printed upon large royal paper, and three volumes, octavo, of descriptive letter-press. The first volume, embracing the description of the muscles, (*Muskel-lehre,*) was published as early as 1815, and was so favourably received, that the author was induced to republish it, with some emendations, in 1821. The plates, nine in number, representing the bones and muscles, are all copied from Albinus; a circumstance which renders it unnecessary that we should say any thing relative to their accuracy.

The three first exhibit an anterior, posterior, and lateral view of the skeleton, and are merely introduced as a preliminary to the study of the muscles, there being no delineation of the individual bones. The other plates, amounting to six, represent the muscles as they are delineated in the corresponding tables of Albinus.

The letter-press of the first volume occupies three hundred and thirty pages, octavo, comprising a description of all the individual muscles, together with directions for their dissection and preparation. The general style and execution of the descriptions, afford evidence of the abilities and good taste of the author, and are accurate and explicit, without exhibiting that character of diffuseness which it is so important to avoid. The directions also for preparing the muscles, which are placed at the end of the volume, are judicious and well calculated to facilitate the labours of the young dissector.

The second volume, (*Gefäss-lehre*, oder Lehre von dem Herzen, den Arterien, venen und Saugadern,) including a description of the three orders of vessels, the arteries, veins, and lymphatics, is much more complete, as a treatise, than that on the muscles. The plates, twenty-three in number, represent eighty-three lithographic figures of the natural size, executed on stone by the author, partly from nature, and partly from the best authors. Those which have been drawn from nature are the 1, 6, 7, 8, 9, 10, 11, 13, 16, 17, and 22. They are all well executed, and are devoted as well to the delineation of the natural situation and distribution of the vessels, as to their most important varieties. Figures 5, 6, and 7, of Plate 8, exhibit an excellent representation of a varicose aneurism, implicating the radial artery, which was developed in consequence of a wound inflicted upon that vessel, in the operation of venesection. This figure has been copied by Bierkowskie, in his splendid Anatomisch-Chirurgischen Abbildungen, Berlin, 1827. Plates 2, 3, 4, 12, and part of 15, are from the very able production of Scarpa, Sull' Aneurism. Plate 2 represents the arteries of the thorax, arm and lateral part of the neck; Plate 3 the arteries on the anterior part of the thorax, and those of the arm and hand, together with the principal muscles of the same parts; Plate 4, the arteries of the back of the neck, arm, and hand; Plate 12, the arteries of the inferior extremities; and plate 15; the arteries situated on the

posterior part of the same. Plate 5 represents the arteries of the neck, face, and head, and is copied from the Icones. Anat. of Haller. The same parts are delineated by the author from nature in plates 6 and 8. Plate 14 is copied from the splendid work of Scarpa, Sull' Ernie, Padua, 1817, and exhibits two views, the one of an internal, the other of an external inguinal hernia. Plates 18, 19, and 21, representing the principal veins, are from the inimitable work of Antonius and Caldani, (Leopold. Marc. Antonius et Floriani Caldani Icones Anatomicæ, 1802–1814.) Plate 20 is from delineations of the veins of the head and neck, by Walther, published in Observationibus Anatomicis, Berol, 1775, cap. 4, cum Tab. Œn. 2. Plate 23 is from the celebrated work of Mascagni, De Vasorum Lymphaticorum Corp. Humani Historia, Tab. XVI. It delineates the lymphatics of the abdomen, pelvis, and groin.

The figures contained in these plates are black, and though coarsely executed, they exhibit the same character of accuracy and fidelity to nature, which has obtained for the several works from which they have been copied, such a wide-extended and lasting reputation. Those which are drawn from nature, furnish strong evidence, as well of the author's anatomical knowledge, as of his correct taste. The value of the several figures is enhanced by the care which has been taken in representing the muscles of their natural size, and, as far as practicable, in their exact relations with the arteries, so as to exhibit to the surgeon an accurate view of the parts with which he is most interested, in the various diseases and operations which may claim his attention.

The descriptive letter-press, as in the treatise on the muscles, is contained in one volume, octavo, and occupies six hundred and forty-seven pages. The author commences with some general observations on the character of the different kinds of vessels, after which he treats successively of the particular properties of the arteries, veins, and lymphatics. Some very sensible observations are also made upon the primitive development of the vascular system in man, and the higher order of animals, in which its characters, as developed in the ovæ of these different animals, are attentively examined, and the similarity between the development of the human ovum, and that of oviparous animals, is particularly demonstrated. In the discussion of the several topics which fall under this head, the author has evinced considerable ingenuity, and has avowed his adherence to the tenets of Wolff and Meckel, relative to the connexion which exists between the *vesicula umbilicalis* and the *small intestines*, to the correctness of which our own researches, as well as some pathological specimens in our possession, induce us also to subscribe.

The special description of the arteries is done with much ability, and with strict attention to accuracy. The consideration of the distribution of each portion of the vascular system, is followed by a short description of the principal varieties which are observed in the distribution of the several vessels, and an exposition of their importance to the pathologist and the surgeon. Under the same head, the author has moreover entered into some important details relative to wounds of the several vessels, and has laid down some useful directions to be observed in including them in a ligature. We shall translate a paragraph descriptive of the operation of tying the subclavian artery, on the tracheal side of the scalenus muscle.

"In front of the vessel in this part of the neck, on the left side, are the phrenic and recurrent nerves, and on the right side, the recurrent is reflected upon its posterior part. Beneath it is placed the inferior cervical ganglion of the great sympathetic, and the cardiac nerve which arises from it; and on the right side, the continuation of the sympathetic forms a plexus which surrounds the vessel. On the left side, the thoracic duct passes over it for some distance, to discharge its contents into the left subclavian vein. On both sides it is covered throughout its whole extent by the subclavian vein. On the inner side of the scalenus muscle, and not far removed from it, the subclavian artery sends off the inferior thyroid artery, and in common with it, or by a separate branch from its lower part, the superior intercostal artery. Between this and the heart, it moreover gives off the vertebral artery, and as the ligature must of necessity be applied near this point, the constant stream of blood which is kept up in the collateral vessels, will prevent the formation of a coagulum, and the patient will be, consequently, exposed to the dangers of secondary hæmorrhage. All these circumstances tend greatly to increase the difficulties of tying the subclavian artery on the inner side of the scalenus muscle. In those cases, however, in which it becomes necessary to tie the artery between this muscle and the heart, it may be done in three ways.

"1. The artery is to be sought on the outer side of the scalenus, from whence it is to be traced towards its origin to the inner side of the muscle.

"2. It is to be exposed immediately on the inner side of the scalenus muscle.

"3. It may be tied at the lower end of the common carotid.

"The first plan should be preferred in those cases, where, in performing the operation on the outer side of the scalenus, the artery is found, on exposure, to be so much diseased, as to render it necessary to apply the ligature nearer the heart. Under these circumstances, the operation is to be performed in the following manner:—a grooved sound is to be passed behind the scalenus muscle, upon which a bistoury is to be passed, so as to divide that muscle in a transverse direction. The artery is then to be traced inwards, and the adjacent nerves being separated from it, a ligature is to be passed under it, at some proper point, by means of an aneurismal needle. This part of the operation is, however, attended with considerable difficulty, but may be facilitated, by requiring the assistant, while the surgeon draws the knot, to press it down upon the artery by means of the convex end of the sound.

"In performing the operation according to the second method, an incision three inches long is to be made, immediately above the sternal end of the clavicle, extending through the skin and platysma myoides. By this the clavicular portion of the sterno-cleido-mastoideus muscle will be exposed, and must be raised upon a grooved directory, and cut across, after which the surgeon, either with his finger, or the handle of the scalpel, should separate the loose cellular tissue situated at the bottom of the wound, until the artery is exposed on the inner side of the scalenus muscle. Taking care not to injure the phrenic nerve, and the branches which are given off by the artery itself, especially the vertebral and inferior thyroid arteries, he next proceeds to pass a ligature under the vessel as far as possible from the origin of the branches in question; and when these are sent off near the scalenus muscle, the ligature should be applied between the point of their origin and the heart. Great caution is requisite during this act of the operation, not to wound the upper conical portion of the pleura, which is forced upwards during a full inspiration.

"The first act of the third operation corresponds with the incision, which is made when we wish to apply a ligature to the lower part of the primitive carotid artery. This is to be continued downwards to the point at which this vessel separates from the subclavian; the latter vessel is to be then isolated, and tied near its origin, or further outwards, towards the scalenus muscle."—Vol. II. p. 543.

The great advantages to be derived from a just application of anatomical

knowledge to the elucidation of surgical diseases and operations have long been sensibly felt, and we think that the effort here made by Professor Münz, to give to the subject its proper degree of consideration, cannot fail to be highly appreciated. As to ourselves, we will merely observe, that while we think we have met with some faults in the treatise before us on the vascular system, we are free to declare it as our opinion, that every part of it will be found to afford important advantages to the anatomical and surgical student. The pathological and surgical observations, appended to the descriptive portion of the work, possess a high value.

The third volume, (Eingeweid-lehre,) contains a description of the organs of digestion and urine, the male and female organs of generation, and the organs of voice and respiration. These different subjects are represented in ten large folio plates, containing eighty different figures, in which the objects are represented, for the most part, of their natural dimensions. The four first plates exhibit as many sections of the trunk of the body, made so as to expose the different viscera in their anterior, posterior, and lateral aspects, and in their natural situation and relations. Plate 5 is devoted to the mouth, salivary glands, throat, an internal aspect of the stomach, and the configuration and structure of the liver and its appendages. Several figures are introduced representing magnified views of sections of the parotid gland, liver, and of the follicules and villi of the mucous membrane of the stomach and intestines. Plate 6 is devoted to the pancreas and spleen, kidneys, bladder, and male organs of generation. Fig. 8 of this plate is particularly interesting, as it gives a view of a longitudinal section of a kidney magnified to the volume of one foot in its long diameter. Fig. 12 furnishes a very good view of the vascular arrangement of the body and glans of the penis, apparently from one of Mascagni's plates, contained in the Prodroma della Grande Anatomie; and in fig. 14, we have a magnified view, very well executed, exhibiting the intimate structure of the testicle and epididymis. We have particularized these subjects as possessing a considerable degree of merit. The whole plate is, however, well executed. The same is true to a certain extent of plate 7: in it are delineated a part of the male and female organs of generation. Fig. 1 gives a very good lateral view of the male pelvis and organs. But decidedly the most interesting part of the plate is that which has reference to the descent of the testicle in the fœtus. This is excellently represented in several figures, of which the 4, 5, 6, 7, and 8, are copied from the very able dissertation of Seiler, entitled *Observationes Nonnulæ de Testiculorum ex Abdomine* in *Scrotum descensu, Lipz.* 1817. Fig. 11 is from the very able work of Langenbeck, *(Commentarius de Struct. Peritonæi, &c. Gœtting.* 1817.*)* Tab. 8 represents the female organs of generation; and fig. 2 gives a good lateral section of the female pelvis and organs, which seems to be a modified copy of one of Rosenmuller's plates, (Anatomisch Chirurgisch. Abbild. 1811–18.) Plate 9, representing the organs of respiration and voice, possesses some merit, especially fig. 4, in which is exhibited the termination of the bronchial tubes, in the air-cells, according to the researches of Riesseissen. The value of the plate might, however, have been greatly enhanced by the author drawing freely upon the very able work of the individual just quoted, upon the structure of the lungs. We are not disposed, however, to find fault; on the contrary, we find much in Professor Münz's

plates to commend. It is true, they are coarse, and present no claims to be considered as specimens of elegance, but at the same time strict attention has been paid to accuracy, and much judgment has been displayed by the author, as well in his original designs, as in his selections from others. Even their coarseness will tend to increase the extent of their usefulness, since the author has so far acted up to his design, expressed at the outset, of furnishing the student with accurate delineations of the organization at a cheap rate, that his plates can be made, by that circumstance, to fall within the means of many who would be unable to possess themselves of the more elegant, and far more expensive works of Tiedemann, Cloquet, Mascagni, and others. It will moreover be seen, by referring to the various sources from whence the materials of Professor Münz's work have been drawn, that the student who possesses it, can very well dispense with others, as many of the plates have been copied from the works of the ablest authors, amongst whom we may mention Albinus, Haller, Walther, Caldani, Scarpa, Mascagni, Rosenmuller, Langenbeck, Seiler, and others.

Of the descriptive portion of the work comprised in the third volume, we have but little to say. It, in general, bears the stamp of merit, and our limits will not allow us to designate particularly its claims or defects. We will merely observe, that the author, with Chaussier, Ribes, Madame Boivin, and others, considers that the inner surface of the uterus is not supplied with any lining membrane, but that the mucous membrane is lost upon the neck of the organ. Our own researches have led us to adopt a different conclusion. At page 480, however, we find an important part of description, the correctness of which, though new, is confirmed by our own dissections. "The vocal cords, or ligaments of the glottis, consist of the tendon of a thin semipeniform muscle, which is situated on the outer side, and within the duplicature of the mucous membrane of the glottis, which forms the superior and inferior borders of the ventricles of the larynx, with which it is intimately connected." We have repeatedly dissected these muscular fibres, which are inserted obliquely into the vocal cords, and have, since the winter of 1827, demonstrated them in our lectures. They can be easily shown in a good muscular subject, merely by dissecting up the mucous membrane. These muscular fibres, no doubt, have some instrumentality in the production and modulation of the voice, and are certainly much better adapted to that office than simple passive ligaments, which have hitherto been considered as the principal instruments of that important function.

Not the least important part of the work before us is that which is devoted to the numerous physiological and pathological remarks with which it is interspersed. The description of each organ is, moreover, followed by a reference to the principal authors who have written upon the subject, thus furnishing a useful bibliography, by which those who may wish to extend their researches, may be enabled to refer at once to what has been already done.

We regret that the fourth volume is not yet published. It is, however, promised to be forthcoming with all possible despatch, and will, no doubt, when finished, be found like the volumes before us—well adapted for those for whom the work was especially intended. The fourth volume is to embrace the consideration of the brain and nervous system, to which the author has promised

to add an appendix, which is to supply what is deficient in the first volume on the bones and ligaments.

Having said thus much of the materials and execution of the work before us, it is needless we should enter into any further details. It will be seen, from the tenor of our observations, that we think well of it as a production calculated for the use of students, and we feel assured, that it cannot fail to afford them great advantages whilst engaged in anatomical pursuits. We are not one of those who believe that anatomy can be taught by means of engravings; yet, from the result of considerable experience, we feel ourselves authorized to believe that whilst the student is engaged in dissections, such delineations, by exhibiting to him general notions of the parts that are to be exposed by his knife, tend very much to assist him in the acquisition of anatomical knowledge. It is in this manner the work of Professor Münz should be used. It should be made the manual for the dissecting room, a purpose for which we think it well adapted. American students stand in much need of such a work, and he who shall supply a desideratum so important, will deserve well of his country. E. G.

XXI. *Institutionum Medicinæ Practicæ, quas auditoribus suis prælegebat.* Jo. Bapt. Burserius, de Kanifeld, Recudi curavit, Just. Frid. Car. Hecker, Medicinæ, Utriusque Doctor, et Professor P. E. in Univers. Litter. Berolinensi, plurium Societatum Medicarum, et Litterar. Socialis. Vol. 4. Lipsiæ, 1826.

The Institutes of the Practice of Medicine, of Jo. Bapt. Burserius. Edited by Professor Hecker, of Berlin, &c. 4 vols. Leipsic, 1826.

The Institutes of Burserius have been long known to the profession, and it is not on account of their novelty that we now announce them to our readers. It is probably generally known that the author was suddenly cut off in the midst of his brilliant career, at a time when only a part of the work in question had been made public. The remaining portion, the materials of which were left in a crude and unfinished condition, has long been a desideratum with those who admired the correctness of his principles, as they could not have been otherwise than captivated with the beauty, and even eloquence of his style, though conveyed through the medium of a dead language, and many attempts have been accordingly made to supply what has been so much wanted. Unfortunately, however, most of these attempts have failed, and it remained for Professor Hecker, a gentleman distinguished as well for his polite, as for his professional attainments, to bring to the execution of the task that ability and erudition which were necessary to ensure success. The edition of Burserius, which we have here announced, is the fruit of this enterprise, in which, we think, all will agree with us, that Professor Hecker has conferred an important benefit upon the profession.

The three first volumes, the first containing the consideration of fevers, the second that of the exanthemata, and the third the diseases of the head and neck, may be considered the result of the author's own labours, they having, for the most part, received the finishing touch of his own hands. The fourth, however, is posthumous, and has been drawn up by Professor Hecker, from the crude and unfinished notes of the author; "non enim elaboratas, absolu-

tasque continet prælectiones, uti fortasse sunt, quæ tribus prioribus continentur voluminibus, *sed rudes eas ac informes* quales nempe illi tum e calamo exciderunt, cum primum eas de die in diem festinanterque, in usus scholasticos exararet."

This fourth volume is devoted to the history and treatment of the diseases of the chest and abdomen, and although the materials of which it is composed, were found in the rude condition represented by Professor Hecker, we must do him the justice to say, that he has put them in a form to bear a very creditable comparison with those of the preceding volumes. It is needless we should say much of the work in question. To many of our readers it is doubtless already known. We will therefore merely observe, that it should be known to all; for although the opinions are often somewhat antiquated, the descriptions of disease are drawn up with much accuracy and clearness, and the practice inculcated is generally in accordance with correct and rational views. E. G.

XXII. *Medico-Chirurgical Transactions.* Published by the Medical and Chirurgical Society of London. Vol. XV. Pt. II. London, 1830. pp. 187. 8vo. Plates 4.

This Part of the 15th Volume contains only three memoirs. The first, by Dr. Hodgkin, is devoted to the description of the anatomical characters of a large and important class of structures, which, though often met with in various parts of the body, are foreign to it in its healthy or natural state. The first of these adventitious structures noticed by Dr. H. are the serous membranes occasionally found in various parts of the body, as the result of irregular or accidental production; they have been confounded by some pathologists with hydatids and other cysts, and hence much confusion has arisen.

The adventitious serous membranes, like those naturally existing in the body, form completely shut cavities. As far as we can ascertain, they are wholly, or at least with but few exceptions, the result of an entirely new formation dependent on some anomaly in the function of nutrition, but respecting the precise nature of which, we are completely in the dark. Dr. H. divides the serous cysts into two classes. The first comprising those which are simple, and for the most part solitary, but which, if accompanied by one or more similar membranes, owe this association to the accidental circumstance of the same cause which produced the one, having likewise operated in its neighbourhood, rather than to the sac possessing the remarkable property of giving origin to new growths having the same character as itself. Cysts of this class are formed in various parts of the body. Dr. H. has met with a thin and delicate serous cyst, about the size of a nut, perfectly circumscribed, and filled with transparent colourless serum, situated at the base of the brain, not far from the tractus opticus, in a female who had not been observed to present any cerebral symptom.

Clusters of them are found in the plexus choroides. These are manifestly vascular, and seldom exceed the size of small currants.

Simple serous cysts are occasionally formed in the eyelids; some are found along the edges of the tarsi, where they seldom acquire more than a moderate size, and their removal is effected with little or no difficulty. Those which are

situated more completely in the body of the eye, and which at times extend pretty deeply into the orbit, are more difficult in their treatment, and more serious in their consequences. Dr. H. saw a young woman in La Charité, under the care of Baron Boyer, who was affected with a cyst of this kind of nearly the size of a chestnut. From the depth to which it extended into the orbit, it was not thought expedient to attempt the total removal of the sac, but it was hoped that when the greater part had been removed, the remainder might be obliterated by adhesive inflammation; but instead of this result being obtained, a high degree of irritative fever carried off the patient in a few days.

Simple adventitious cysts sometimes occur in the lungs, according to Laennec. They are also found in the female mamma, and in the neighbourhood of the uterus, particularly in the folds of the broad ligament, or intimately connected with the ovaries, if not imbedded in their substance. Cysts of this last kind at times acquire a very large size, and constitute one of the forms of what is commonly called ovarian dropsy.

The second class of adventitious serous membranes, are those whose parietes present the very remarkable property of producing other cysts of a similar character with themselves, or morbid growths, which, if they do not present, strictly speaking, the character of cysts, are, nevertheless, referrible to the same type or mode of formation. Cysts of this class are also found in different parts of the body, but they are by far the most frequently met with, acquire the largest size, and present the greatest variety of appearances, in the neighbourhood of the uterus, but more especially in the ovaries and the folds of the broad ligaments.

In this class there is a principal cyst, on the internal surface of which are elevations more or less rounded, and of various sizes, projecting into the interior of the cavity, and covered by a membrane which is continuous with the lining of the principal sac. These tumours are cysts of a secondary order, containing sometimes a serous, at others a mucous secretion. On the internal surface of these secondary cysts, on minute examination, there may be seen a cluster of tertiary cysts, upon which are reflected the lining membrane of the cyst in which they are contained.

"The proportion which the contained cysts bear to the cavity of the membrane reflected over them is extremely various. Sometimes the fluid, especially when it is of a serous character, nearly fills the containing cyst, whilst the bunch of cysts is of very inconsiderable size. At other times, the superior cyst, is almost entirely filled by those of the inferior order; in which case we may generally find that the nodulous or tuberose elevations, which we may have observed on the exterior of the containing cyst, are occasioned by the unequal development of the contained cysts; for those which have grown most rapidly, and have attained the largest size, forcibly dilating that part of the cyst which is reflected over them, produce a kind of hernia at that part. It sometimes happens, that the distension occasioned by the growth of the contained cysts is sufficient not only to disturb the even surface of the containing cyst, but actually to produce a rupture, which admits both of the escape of its fluid contents, and of the unrepressed growth of the secondary or tertiary cysts, which took their origin from its internal surface. The inferior cysts themselves are found to contain a serous or mucous secretion, and very often to produce another order of cysts, possessing the same character with themselves. It is certainly by no means surprising that these cysts of different orders, which sometimes present the appearance of delicate and pellucid sacs, filled with clear and colourless

serum, and possessed of the astonishing power of giving rise to an almost innumerable multitude of cysts presenting the same character with themselves, should at the first view have been confounded with true hydatids; but it is no less surprising, that a little careful inspection did not at once irrevocably remove the delusion."

The membranes of which these cysts, whether of the second or third order, are formed, are liable to inflammation. The product of this inflammation, like that of inflammation which takes place in the serous membranes naturally belonging to the body, may either be of the plastic or of the inorganizable kind. In the former case it leads to the formation of adhesions between the close portion of the membrane, or that which constitutes the contained cluster of cysts, and that portion which is reflected over them, forming the parietes of the containing cyst. It is the formation of these adhesions which so frequently renders it difficult to demonstrate the structure which has been described. When the product of inflammation is of the inorganizable kind, we find a secretion more or less puriform in its characters. This secretion is sometimes found confined in one or more of the secondary cysts. At other times it finds a way of escape into the interior of the principal cyst, and thus contributes to the variety in the appearance presented by the fluids drawn off in the operation of paracentesis for the relief of ovarian dropsy.

Dr. H. describes three varieties of these secondary cysts; the first has neither slender necks or broad bases; the second is characterized by slender peduncles. It has been stated, that

"At particular points on the internal surface of the superior cyst that the clusters of inferior cysts take their origin. It sometimes happens, that the number of cysts forming the cluster is so great, in proportion to the space which they occupy, that, like trees too thickly planted, they interfere with each other's growth. Their development is more or less limited to an increase of dimension in length. Yet as their free extremities are allowed to diverge, we sometimes find the slender peduncle gradually dilating into a pyriform cyst. At other times the dilatation does not take place till near the extremity of the peduncle, and then produces a cyst more nearly resembling a grape or currant. At other times no dilatation takes place, probably from the cavities having been wholly obliterated."

In the third variety the secondary cysts have a broad attachment and flattened form. The secondary cysts in this variety also are

"Collected in clusters on the parietes of the superior cyst, but they appear to produce a circumscribed and more or less considerable thickening of the parietes rather than a prominent tumour covered by a reflected membrane; they constitute, however, perfectly shut cavities, acquire at times a considerable size, contain in some instances a serous, and in others a mucous secretion, and produce in their parietes inferior orders of cysts, having like themselves broad bases and flattened forms. From the extent of their bases, the secondary cysts in this variety occupy proportionably a much larger space on the internal surface of the containing cyst, and by their development, although they increase its size, they seem more completely to encroach on its particular cavity. In cutting into a tumour composed of this form of cysts, we may find, it is true, several cavities of considerable size, but we shall probably not find the greater part of the fluid collected into one particular cavity. Hence, in this variety of ovarian dropsy, fluctuation is often obscure, and the relief afforded by paracentesis only partial and trifling."

Adventitious serous cysts, assuming the form of reflected membranes, are also met with in the testicle, female mamma, and in the eye.

Dr. H. next proceeds to the consideration of the different heterologue deposits, confounded by modern anatomists under the names of cancer, scirrhus, and carcinoma. Dr. H. endeavours to show that these formations by their structure, mode of development, and for the most part, by their influence on the system, are to be referred to one common type, and grouped into one family, yet that there are certain peculiarities which justify the division into at least three specific divisions. Their limits are, however, so ill defined, that it is difficult often to decide to which of the species a particular specimen should be referred; but in the best marked cases there is no difficulty of this kind.

The common points of resemblance in these tumours depends chiefly on structure. These tumours have a more or less rounded form—a section shows them to be more or less divided by septa, which affect sometimes a radiated form, and at others a cellular character; these differences, however, upon which much stress has been laid, Dr. H. thinks depends upon the direction in which the sections are made. This plan of examination is therefore objectionable, and still more so when the part is emersed in alcohol, by which the fluids are coagulated, and the transparent parts rendered opaque, and the most important characters thus destroyed.

"If we carefully dissect down to the surface of these tumours," says Dr. H. "we shall usually find that it has a capsule or covering, which has, I believe, generally been supposed to consist of the altered and condensed cellular membrane of the parts which have given way before the growth of the tumour. This idea is probably correct with respect to the unequally thick external part of the capsule; but if we dissect carefully, and examine those tumours in which the process of decay has either not commenced, or has made very little progress, we shall find that surface which is next to the mass of the tumour more or less smooth and even, and on raising it we find that it is reflected over one or more somewhat pyriform bodies, attached by a base, which is generally narrow and peduncular, to some part of the circumference of the enclosing capsule. Unless the tumour is very small, it is much more common to find several rather than a single body of this kind, and as there is often little, if any fluid intervening between them and the enclosing capsule, their form is somewhat modified by their mutual pressure. Sometimes, though more or less closely applied to each other, these pedunculated bodies are perfectly detached at their sides, and may, consequently, be readily traced to the point which forms the common origin of their peduncles. At other times these bodies are so adherent amongst themselves, and the membrane covering them is so tender and delicate, that without very great care the arrangement of their structure may be overlooked, in consequence of the pedunculated bodies being broken or torn through in a different direction from that to which their mode of formation would naturally dispose them." * * *

"If we continue dissecting and raising the outer cyst, forming the reflected membrane which covers the radiating pedunculating bodies, we shall generally find, that on one or more sides it dips down deeply into the mass of the tumour, and forms a part of the septum which separates the one packet of pedunculated bodies from the others which generally concur to form the mass of the tumour; for it comparatively rarely happens that the tumour is composed of a single cyst filled with pedunculated bodies. On examining the different encysted packets of pedunculated bodies which compose the tumour, we shall often find some indication of their having taken their origin from nearly the same spot, which is generally the most indurated part of the tumour. We may

likewise observe, that the different secondary tumours, or encysted bundles of pedunculated bodies, are in very different stages of progress."

True scirrhus tumours are characterized by their hardness, which is in many instances equal to that of cartilage, but they want the uniform texture of this natural tissue, and in this respect bear a nearer resemblance to fibro-cartilages; hence, when divided by incision, they give rise to some noise, and are said "to cry under the scalpel." There is want of uniformity also in the colour of this structure.

"True scirrhous tumours appear sometimes to depend on a single primary tumour, at other times, several may be satisfactorily made out. That part of the tumour which appears to have been the common origin of the primary cysts, where there are more than one, or from which the contained pedunculated bodies radiate when there is only a single primary tumour, is in general the most indurated portion, and is, at the same time, the most indistinct in its structure. When examined externally, after the surrounding natural structures have been carefully dissected off, this part of the tumour is found to be the most irregular, has a somewhat corrugated appearance, and suggests the idea of its having been the sort of root by which the adventitious growth was implanted on the natural structures. The radiated appearance so strongly insisted on by most authors who have described scirrhous tumours, and the rationale of which I trust I have shown, is particularly conspicuous when the section passes through this point. The fluid part of a true scirrhous tumour bears in general a very small proportion to the rest of the structure, it has a viscid or mucous character, more especially where softening has not taken place; but where this process is going on, it assumes the character of an offensive ichorous discharge, and acrid and highly deleterious qualities have by some been ascribed to it.

"The process of softening sometimes commences internally at one point, at other times in several small isolated points; in others, again, the ulceration through the integuments is the first part of the process of decay.

"True scirrhous tumours, notwithstanding the length of time during which they continue to grow, very rarely acquire a considerable size. Indeed, it not unfrequently happens, that the wasting of the neighbouring structures, and more especially of the female mamma, which is by far the most frequent seat of true scirrhus, more than compensates for any increase of volume dependent on the new formation."

The tumours now under consideration, "in many instances remain for a length of time in an indolent state, without passing into a state of softening, or producing an external ulceration. Before this ulceration takes place, the tumour becomes adherent to the skin, and though there is generally but little redness observable in these tumours, a spot, most frequently of small extent, becomes of a bright and cherry-red or of a purple livid colour before the continuity of the integuments is destroyed. It is needless that I should again describe the characters of a malignant ulcer, which are in general very completely seen in the ulcerative stage of true scirrhus. It may, however, be said, that the ulceration of true scirrhus is attended with a more decided loss of substance than that of the next form of tumour of which I shall speak—viz. cerebriform cancer, and which is often attended with large, rapid, and irregular growth from the ulcerated surface, whence the names of fungoid disease, fungus medullaris, &c. have in all probability been derived. The ulceration of true scirrhus is indeed bounded by its elevated wall of circumvallation; but the central parts, gradually hollowed away by the softening of the very imperfectly organized structure, present a foul and deep chasm."

Sometimes one or more vessels give way and lead to a hæmorrhage, which in some instances is very profuse.

Dr. H. believes that sometimes, though very rarely, tumours possessing the true characters of scirrhus have been detached by the sloughing of the surrounding structure; and by being in this way completely thrown off from the system, the cavity which they occupied has been filled up with granulations, the surface cicatrized, and a permanent cure obtained.

Dr. H. next describes the scirrhous tubercles developed in the body of the uterus. These possess a well-defined rounded figure, a close and compact tissue, in which the structure, referrible to the same type as the cysts to which I have so often alluded, is tolerably distinct, on a much larger scale than that generally observable in true scirrhous tumours in other parts of the body. They rarely, if ever, present any cells or cavities. They acquire a much larger size than true scirrhous tumours in other parts of the system. They never, or at most very seldom, pass into the stage of softening or ulceration, and when formed in the uterus, without any other organ having exhibited a tendency to the production of scirrhus, the formation almost always continues wholly confined to this organ.

The next form of malignant disease described by Dr. H. is that to which the terms encephaloid tumours, cerebriform cancer, medullary sarcoma, spongoid inflammation, fungus hæmatodes, and fungoid disease have been applied. One of the most striking features which distinguish the fungoid disease from true scirrhus, is the rapidity of the development of the tumours in the former, which sometimes attain a prodigious size in even a few weeks. Scirrhus is also almost exclusively the disease of advanced life, whilst the

"Fungoid disease makes its appearance in individuals of every age; but its most formidable and extensive ravages are seen in the young. Whilst in true scirrhus the fluid matter forms a very inconsiderable and scarcely notable part of the structure, in the fungoid tumour it is frequently pretty abundant, presents a great variety in its characters, and is often collected in cavities of considerable size. In the scirrhous tumour, the peculiar mode of formation which I have pointed out must often be inferred by analogy, guided by faint and partial traces; but, in the fungoid disease, we meet with those unequivocal manifestations which almost speak for themselves. In true scirrhus the traces of vascularity are very faint; but in the fungoid disease the adventitious membranes possess a high and preternatural degree of vascularity. The vessels which we see ramifying in them, are not only numerous, but large." "These newly-formed vessels, though large and numerous, are extremely weak and tender, and derive little or no support from the structure through which they ramify, or by which they are surrounded; hence, they are liable to give way at numerous points, whence proceed those frequent and extensive hæmorrhages which so often characterize these tumours, and have led to the term of fungus hæmatodes, which has not inaptly been applied to many of them."

Sometimes the hæmorrhage from these vessels produces an effusion into the cavity of the membrane reflected over an inferior order of pedunculated cysts or bodies, and distends it into a cavity filled with blood—at other times the effused blood infiltrates the more solid parts of the tumour, and produces an appearance which Laennec has well compared to an apoplectic clot.

"The more solid parts of the tumour differ in a marked manner from that which composes the scirrhous tumour. In this disease, the secondary cysts, which are often of large size, generally become filled with a material which at first bears a considerable resemblance to tender or feebly coagulated fibrine or plastic lymph. Into this substance new vessels speedily shoot; but being neither

susceptible of perfect organization, nor calculated to remain inert and dormant, it speedily, but gradually, loses its vitality, and, like other transparent parts in which such a change is effected, gradually becomes opaque, and bears, in consistence and appearance, a close resemblance to the substance of the brain of a child: hence the terms, cerebriform cancer, encephaloid tumour, and medullary sarcoma."

The characters of fungoid disease are of course modified by the tissues in which the tumours are developed. When it takes its origin in a part of the osseous system—

"Bony matter continued from the natural structure forms a striking part of the new growth, through which it often radiates from that part of the bone in or near which the disease commenced. The bone thus formed is of a loose and feeble texture, compared to that of healthy bone. It would appear that the deposit of bony matter only takes place in that part of the tumour which is subjected to the pressure of the periosteum, which is often greatly distended by the growth of the tumour. Its fibres become separated by this distention, the morbid growth advances through the opening and proceeds with increased rapidity, and soon loses all trace of bony deposit."

The consideration of melanosis Dr. H. postpones for a future memoir.

The second article is entitled "Observations on the Statement made by Dr. Douglass of Cheselden's Improved Lateral Operation of Lithotomy;" and is by John Yellowly, M. D. The object of this memoir is to correct some errors into which Dr. Douglass has fallen in relation to Cheselden's last mode of operating for the stone, and prove that the mode which received Cheselden's final and mature approbation, is that described in the fifth and sixth editions of his anatomy.

The third and last article is by Robert Lee, M. D. and is entitled "Pathological Researches on Inflammation of the Veins of the Uterus, with additional Observations on Phlegmasia Dolens." Uterine phlebitis is at present attracting considerable attention, and much information has within the last two years been developed in relation to it. As it is a subject of considerable interest, and one to which it would be impossible to do justice at the conclusion of a notice already too much extended, we shall postpone a consideration of it until our next number.

XXIII. *Handbuch der Entbindungskunst.* Von Dr. Friedrich Benjamin Osiander, Wieland Königl. Grossbrit. Hanov. Hofrath, und Professor der Medicin und Entbindungskunst, Director des K. Entbindungs Hospitals, Mitglied der K. Societät der Wissenschaften zu Göttingen, &c. Erster band. Zweite Vermehrte Auflage. Bearbeitet von Dr. Johann Friedrich Osiander, Prof. der Medicin zu Göttingen, &c. mit dem Portrait des Verfassers. Tübengen, 1829.

Manual of Midwifery. By Fred. Benj. Osiander, M. D. Second improved edition, edited by John F. Osiander, M. D. Professor of Medicine at Gottingen, &c.

The name of Osiander has long been familiar to the medical world as that of one of the most distinguished accoucheurs of Europe. The first part of the work, which we now announce, was published as early as 1818—the se-

cond part, or volume, in 1820—the third volume in 1821, and the fourth, and last, which is posthumous, and which is edited by the author's son, Dr. John Fred. Osiander, in 1825. The first volume, therefore, announced above, is a new edition of the first part, which had become scarce. The whole, taken collectively, constitutes a very complete and able system of the obstetric art, and deserves to be attentively studied by every one who is devoted to the practice of that branch of the profession. We cannot enter into any analysis of the work, as such an undertaking would require more space than we can allot to the subject. Suffice it to say, that the whole of the topics, which appertain properly to the department of which it treats, are discussed with great ability, and that while the author furnishes us with the rich results of his own extensive experience, he treats the opinions of others with great candour, and with the true spirit of sound criticism. We can confidently recommend his work as a source from which a great fund of useful information may be derived.

E. G.

XXIV. *A Treatise on Deformities; exhibiting a Consise view of the Nature and Treatment of the principal distortions and contractions of the limbs, joints, and spine. Illustrated with plates and wood cuts.* By Lionel J. Beale, Surgeon. London, 1830, pp. 248. Pl. 4.

Nothing more emphatically expresses the belief in the increasing frequency of distortions, especially of the spine, than the great number of works annually put forth on that subject. The apparently *sudden* augmentation of the number of such cases, has produced many essays, but these have of course not been usually by experienced men, especially of the English school. In France, where there exist several very large establishments for the management of distortions, we may naturally expect to find the most valuable memoirs on the philosophy and treatment of such diseases, and accordingly, in the works of Delpech and Lafond we perceive the evidence of a very enlarged experience: but both authors have been betrayed into a display and exclusiveness, little in character with high professional spirit, or accordant with sound and useful medical knowledge. Each sets out to make a point, but it is not for the art; it is for himself.

The only English author who has treated at large and with much science, of the difficult diseases of distortion, is Mr. John Shaw of London, whose premature death has left a chasm in this important subject, not likely to be as well filled. At an early age, having acquired the confidence of the vast metropolis, in which he resided, his opportunity of becoming familiar with this disease was almost unlimited. As demonstrator of anatomy in the excellent school in Windmill street, he was furnished with frequent views of the more immediate changes produced in deformed parts. With all these advantages, however, the style, arrangement, and tautology of Mr. Shaw's numerous works, deprive them of much of that value which their philosophy might otherwise claim for them. In general, the other English works on this subject, are usually proclamations of peculiar treatment, lauded, for private purposes, and setting forth a practice, which has, in no case met with the reception claimed for it; and, at this moment, the great English surgeons abandon this most important department

of the art to instrument makers, posture masters, and teachers of gymnastics and callisthenics. The concise treatise before us, written perspicuously, and professing to give a summary of the practice suggested by Delpech, Scarpa, Lafond, Shaw, and others of high authority, will, therefore, be found instructive and useful. It also treats of the distortions of the different parts of the body, and brings into one volume, the whole system of *Orthomorphia.* In the appendix, are figured various forms of distortion, and the instruments selected by Mr. Beale for their removal. Although he is favourable in spinal serpentine curvature to the now popular mixed treatment, by exercise and extension, he supports some positions which, at this time of day, grate a little on our intellectual organs.

"These and *all other organic diseases,*" says our author, "are the result of some morbific action of the local arteries, or of the general circulation; and this leads us pretty near the old humoral pathology, which, like many other old notions, may, one of these days, come again into fashion," &c. p. 172.

He denies that stays are among the prominent causes of lateral incurvity; defends easy and lounging postures when not in action; recommends feather beds in preference to mattrasses; and, after the manner of Delpech, confines his patients, when extended, to the horizontal posture.

An analysis of so concise and comprehensive a work is scarcely possible, and is the less necessary, since it contains so little that is peculiar. It is a work, however, which for these very reasons, will be found the more instructive and useful to the busy practitioner, who has little leisure for extensive references.

XXV. *Mémoires sur l'Electro-Puncture, considérée comme moyen Nouveau de Traiter efficacement la Goutte, les Rheumatismes, et les Affections Nerveuses, et sur l'emploi du Moxa Japonais en France; Suivis d'un Traité de l'Acupuncture et du Moxa, principaux Moyens Curatifs chez les peuples de la Chine, de la Corée et du Japon; Ornés de figures Japonaises.* Par Le Chevalier Sarlandiere, Docteur en Médecine, Membre de Plusieurs Académies et Sociétés Savantes. Oct. pp. 150. Pl. 2. A Paris, 1825.

Among the Chinese, Japanese, Coreans, and many other Orientalists, the operations of acupuncturation and applying the moxa, constitute we are told, the primary agents, upon which all hopes of relief from pain and sickness are founded. We thus find by far the largest proportion of the inhabitants of the earth, putting their trust in remedies, which with us are regarded as insignificant by many, and by nearly all as of secondary importance. We cannot but admire the happy circumstance, which in this instance interposes to protect so many of the human family from the pernicious consequences which the employment of the more potent resources of our therapeia might occasion. That at least the largest portion of the human family, should thus be sheltered from the baneful consequences, which in other parts of the world so often attend on the injudicious and even wanton employment of bleedings, evacuants, and other heroics, affords a reflection that cannot but be grateful to the feelings of the philanthropist.

As much information relative to simple acupuncturation has, within a few years, been circulated through the various medical periodicals, and as the sub-

ject of moxa is by no means a new one, we shall at this time, barely observe of both remedies, that in the publication under notice, M. Sarlandiere appears to have presented all the information relative to their uses and modes of application, which the practitioner desirous of resorting to them could desire for his guidance. We pass on therefore to the subject of electro-puncturation, which consists of the combined agencies of simple acupuncturation and electricity. The disappointment which has so often been experienced by those who have resorted to the electric fluid as a means of relief in certain cases, he attributes to its having been employed on the surface only. According to his plan, however, the fluid is introduced directly through the skin into the affected muscular or fibrous tissue, to the point of saturation, when its action is as our author expresses it, to modify the vitality, and change the nature of the pain by putting an end to the irritation. It is evident that simple acupuncturation, which supposes the electric fluid to be subtracted, must be precisely the reverse of electro-puncturation, where this fluid is introduced, but notwithstanding this difference in the two plans, we are informed that their operation is similar in effect, though not in degree; one method being much more energetic than the other. By some, it may appear as no small advantage of electro-puncturation, that it will have less incredulity to contend against, than the simple introduction of the needle. For this reason, we should suppose that were the inhabitants of the east capable of superadding the curious phenomena of electricity to their favourite operation, their characteristic superstition and love of the marvellous, would soon lead them to prefer, and embrace the practice of electro-puncturation.

The experiments of M. Sarlandiere, have led him to the following general conclusions. 1st. That the electric fluid may be introduced into the body in large quantity, without the production of shock or commotion, and yet not prove sufficient to perform a cure. 2d. That shocks applied to the cutaneous surface, by means of the Leyden vial or other means, may be transmitted through this tissue so as to be felt by the nervous chords, in which case electricity has been employed with success in the treatment of diseases, but the cures have always been effected very slowly. 3d. That the electric fluid, conducted into the interior, and brought into immediate contact with the nervous filaments of the tissues which are the seats of pain, occasions, at the instant of its discharge, a shock throughout the suffering organ. This shock, which dislodges the pain, and is felt in the most direct manner, is much more advantageously applied to the cure of gout, rheumatisms, and nervous affections, than those which are transmitted through the skin, and thus it may be easily conceived, that if some advantage is to be derived from the introduction of needles alone, much more might be expected when to acupuncturation the good effects of electricity were conjoined. M. Sarlandiere denies the magnetic virtues which have been attributed to the needles, since if they exerted any agency of this kind, those of steel would certainly be preferable to those of gold and silver, which last are almost exclusively employed.

We have neither time nor space for a description of his modes of operating, or to notice half the diseases in which he resorts to electro-puncturation. A few of these will suffice to show his views of the modus operandi of the remedy. Among those which yield to it he mentions rheumatic and gouty at-

tacks, together with nervous affections when unattended by inflammatory symptoms. In these cases the disease is attacked in the bud, as it were, when its mode of existence is destroyed, and the condition of the nerves causing the pain altered. As in this operation the practitioner has in his hands an agent superior to, and able to controul the nervous action whatever may be its force, he may always be sure of attaining his end, namely, effecting a change in the morbid conditions of sensibility and action, provided always that there be no organic lesion or inflammation, the intensity of which last would be increased by the shocks administered. Electro-puncturation is therefore to be viewed as an active stimulant agent for the production of revulsion, acting mainly upon the principle in the old Hippocratic aphorism, which says, duobus doloribus simul obortis, non in eodem loco, vehementior obscurat alterum. G. E.

XXVI. *Traité Elémentaire d'Anatomie, contenant les Preparations, l'Anatomie Descriptive et les Principales régions du corps humain.* Par A. Brierre de Boismont, D. M. P. &c. &c. Avec des notes Extraites du cours de Ph. Fred. Blandin, Professor particulier d'Anatomie et de Médecine opératoire, &c. &c. Paris, 1827, pp. 800, 8vo.

This volume presents in an abridged manner, the several parts composing a body of anatomy; and also the peculiar opinions of Mr. Blandin on the development of the upper lip, the hymen, the descent of the testicle, the structure of the spleen, the arrangement of the valves of the deep-seated veins, and the distribution of the nerves of the larynx. In the first part, the art of making anatomical preparations is briefly related; the second part comprehends descriptive anatomy under its several divisions of osteology, syndesmology, myology; &c. and the third part treats of the anatomy of the regions. The plan of the work is after that of Maygrier's Manual of Anatomy, the text not being quite so laconic.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Singular Case of Malformed Heart.* By Edward Blackmore, M. D. of Plymouth.—The subject of this case, Hannah Kingdon, aged three years and a half, was first seen by Dr. B. on the 10th of November. She was said to have been born a fine baby, and that no ailment was remarked until she was two months old, when her skin appeared discoloured, and peeled off, as if after a fever. "From this period she remained *blue* and drooping, with a bad appetite and irregular bowels; at one time requiring astringents, at another purgatives. She suffered in dentition, but never had fits or vomiting. The full number of teeth were formed, but they all subsequently decayed except two. Micturition was habitually difficult; the extremities were alternately hot and cold, but always easily chilled, and of a deepening livid colour. She never walked alone, nor talked intelligibly. Her respiration was always quick, and at times so obscure as to be scarcely sensible. The chest appeared to the mother like that of a person always hurried and beating. Her diet consisted of bread and butter; but she never eat heartily. All her complaints were aggravated since her inoculation at the age of sixteen months. For the last three months she had violent cough, and the bowels discharged green matter for a fortnight past.

"She is now extremely puny, indeed more so than many infants only eight months old; yet not with the aspect of ordinary emaciation. The hands are turgid and of a dark blue colour; the face tumid and black, particularly the lips, like that of a person hanged; the gums are decaying; the tongue aphthous. She moans grievously. The chest is chicken-breasted; the arteries at the inferior part of the trachea are seen to pulsate violently; the heart's pulse is very vibratory to the hand; its rythm regular; the pulse at the wrist is small, very feeble, but regular. Her whole aspect indicated imperfect arterialization of the blood. It was impossible to mistake the *morbus cæruleus.*

"Some magnesia with rhubarb only was prescribed. On the 20th, after a flow of black blood from the mouth and nose, death speedily ensued."

Inspection twenty-four hours, P. M.—Extreme atrophy, particularly of the inferior limbs; a diffused livid discolouration of the trunk; lips black; mouth cankrous.

Chest. The heart so large as to hide and compress the lungs; the right auricle and ventricle, as it seemed, alone visible; and these were half as big again as the entire heart, in a subject of this age; the auricle and superior *vena cava* were greatly distended with black blood; the ventricle evidently vastly thickened and firm: four ounces of serum within the pleuræ; no pleuritic adhesions; one ounce in the pericardium. *Second* aspect on dissection. Lungs small, particularly the left; dense like flesh, even more so than the liver; of a deeper mahogany colour than natural, with no cadaverous lividity, as is common in the

posterior parts; no tubercles, nor confirmed induration. The air tubes were filled with much frothy mucus; and the mucous coat of the large bronchi was like scarlet cloth. The left ventricle was extremely small in comparison with the right, but as big as is natural at the present age in health; where the left auricle should have been, only small muscular vestiges were found without cavity.

"After a nice dissection of the pericardium from the heart, on attempting to lay open what appeared to be the tip of the left auricle, the knife immediately entered a large single cavity, betwixt which and the left ventricle no communication existed, except through a small fissure; the natural ventricular opening being occluded by a firm adherent fleshy membrane. From the posterior superior part of the right ventricle arose the aorta much enlarged. Its coats were of a dark reddish hue, but the valves perfect. Immediately below the aorta a small pulmonary artery had its origin. The left ventricle held a small coagulum of black blood, which must have entered it by the fissure above described, and which was its sole outlet. Its substance was healthy. No *ductus arteriosus* remained. The valve betwixt the right ventricle and the single auricle was not quite perfect. On compressing the heart the aorta was instantly filled with coagulated blood, which must also have passed into the superior *vena cava* had not a fine arachnoid membrane occluded its mouth. The right auricle proper received as usual the trunk of the superior cava in the site of the *foramen ovale*, and around its orifice was attached the thin delicate membrane already mentioned. The two small pulmonary veins entered the inferior part of the left auricle, which was nearly obliterated, and one large vein entered its superior part. The *sinus venosus* of this auricle was about the size of a small bean. The auricular septum presented the *fossa ovalis* in its natural state, and without communication with the right auricle. It has, however, a direct communication with the left ventricle by means of a small fissure, through which the blood returning from the lungs must have passed, and thence into the right side of the heart. The ribs just where the cartilaginous portion begins, had each a large osseus tubercle, which pointed inwards and indented the lungs.

"*Abdomen.* The liver was very large, but natural in its texture. From its external aspect it seemed as if the right lobe had been imbued with a darker blood than the other parts. The gall-bladder contained bile of an ochrey-yellow colour; the spleen was very large and full of dark fluid blood; the intestines externally exhibited a diffused sublivid vascularity; internally the *valvulæ conniventes* of the ileum were of a dark red hue, vascular, elevated, and covered with what at first appeared to be chyle; but as similar matter was found in the colon, it must have been mucus, although very unlike healthy mucus. The stomach was healthy, but small. The mesentery was vascular and livid, and its glands large and darkish.

"The above case is highly valuable, as the malformation is so extreme, and in some points unexampled by any cases within the scope of the author's research; and, more particularly, as its living history is so perfect, and the life of its wretched subject was so singularly prolonged, that it greatly illustrates the physiology of the vital organs in health and disease. In most other cases of malformed heart, the previous history is imperfect, as Dr. Baillie remarks, and the continuance of life very brief, or the malformation more trivial.

"The tumid face, the hæmorrhage from the mouth, with the magnitude and colour of the liver and spleen, manifested that some constant obstacle existed to the free transmission of the blood through the lungs, or the right side of the heart; notwithstanding, as the dissection proved, the aorta freely admitted it from the ventricle. The proximate cause of death in Kingdon is certainly to be referred to the progressive carnification of the lungs, from which, as well as from the contracted size of the pulmonary artery, a stop was eventually put to the decarbonization of the vital fluid. May not the predisposition to this morbid change in the lungs have been derived from the preternatural circulation of

blood, already more or less oxygenated in the branches of the pulmonary artery? It is not impossible, that in a warm climate, or at a more genial season than this severe incipient winter, the life of an individual with such a malformation as that now described may be prolonged.

"Her dwarfish form, the undeveloped mind, the impotence for muscular exertion, with the deciduous teeth, and the frigid skin, impressively illustrate the noxious influence of semi-decarbonized, or oxygenated blood on the functions of the body. The marvel here is, how existence was so far prolonged under such unnatural circumstances? It is important to reflect in what were the conditions of the circulation different in the present instance from the natural state. The blood returning at the same instant from the lungs and the general body, was commingled in the grand auricle, the contraction of which carried the greater portion into the right ventricle, and probably a little into the left ventricle. When these acted, the blood must have passed into the lungs, the aorta, and the single auricle again, where it would meet the waves returning from the *venæ cavæ* and the pulmonary veins; but the concussion of this reflux current would be mitigated, more particularly at the mouth of the superior cava, by the fine valvular membrane described above. A more perfect or more turbulent commixture, however, of the carbonated and oxygenated blood in the heart, could not have been effected, than in the present instance. And as, from the greater than natural disparity in the size of the aorta and pulmonary artery, the quantity of blood returning from the aortic system must have borne a larger than ordinary proportion to that from the lungs, itself also sub-oxygenated, the entire mass of the circulating blood in the arterial system must have been inestimably and increasingly more impure than in the natural state. Indeed there was here, most invariably, even in the cœrulean, a double source of the impurity of the blood in the aortic system. The grand anterior auricle must have held all the blood from the general and pulmonic venous systems; the right ventricle must have also received and projected this double measure, hence its enlarged capacity and vigour. The enormous dilatation of the aorta could not but ensue, more especially as the pulmonary artery admitted less than the usual quantity. In many points, and in respect of the mechanism of the circulation in all points, Kingdon's heart resembled that of a fish combined with that of a snail. The same ventricle was both systematic and pulmonic. 'Frogs, lizards, and serpents have a simple heart, *i. e.* a single auricle and ventricle. In the tortoise and turtle the two ventricles are united by an intermediate opening; but the turtle has two separate auricles, and the large arteries originate in the right ventricle, no vessel coming from the left. The greater circulation is so independent of the pulmonic that it could go on when the animal is prevented from respiring; the cessation of respiration, however, would impede the pulmonic circulation. Whereas in perfect warm-blooded animals, no blood can enter the aorta which has not first passed through the lungs into the left ventricle; hence an obstruction of respiration instantly influences the greater or aortic circulation.'" *Blumenbach.—Ed. Med. and Surg. Journ. April*, 1830.

—

2. *Anomalies in the Distribution of some of the Veins.*—Meckel, in his *Arciv. für Anatomie und Physiologie*, for 1829, relates three interesting instances of anomalies in the venous system. The subject of the first was a man of sixty years of age, who had died from cancer of the œsophagus; a considerable venous trunk, originating in the left lung, and terminating in the subclavian of the same side, was observed.

The second case occurred in a hydrocephalic fœtus; the vena azygos opened into the left subclavian.

The subject of the third case was also a fœtus, and with hair-lip and division of the palate; the inferior vena cava followed the usual course of the vena azygos, and opened like the latter into the superior cava; the hepatic veins were united into a single trunk, and resembled in their disposition the inferior vena

cava, penetrated the foramen of the latter in the diaphragm, and opened into the right auricle.

—

3. *Case of United Twins.*—A case of twins, united together like the Siamese youths, is related in the *Asiatic Journal*, No. 1. New series. "The children were females, and born at a village in Coimbatore, in the month of October, 1804. At the period of examination, October, 1807, they were, of course, three years old. One of them was thirty-four inches high, the other a quarter of an inch shorter. The heads of both were rather long, and the sides of each head much compressed; the features of each strongly resembled the other. The bodies were joined from the lower part of the breast-bone to the navel, which was common to both. They were thus face to face, and could sleep in no other position. In walking, they moved sideways, and sometimes circularly. They generally slept at the same time, but not always; and one would cry whilst the other did not. If the body of one was pinched, the other did not appear to feel; but if the connecting part was pinched, both were sensible of pain. Medicine administered to one affected both. The evacuations of each were regular, but at different periods. Both were healthy children, and not otherwise deformed. One was loquacious; the other talked very little; the liveliest was rather stouter than the other. Both had had the small-pox at the same time, and favourably. In moving or looking different ways, or rather in directions contrary to their natural position, they crossed their hands and arms. They could walk up stairs, and were active in playing with other children.

The mother of these girls was a woman of the weaver caste; she did not, according to the statement of the father who attended them, suffer particularly in bringing them into the world. The same woman subsequently was delivered of separate twins, which were living at the time when this examination took place."

—

4. *Malformation of the Heart.*—Professor Dugès has published in the *Mémorial des Hôpitaux du Midi et de la Clinique de Montpelier* for November last, a dissection of a female infant, which appeared to have died two or three days after birth, and in which the aorta originated from the right ventricle, and the pulmonary artery from the left; the vena cavas terminating as usual in the right auricle. The aorta after birth received only the blood of the right auricle—that of the vena cavas. The right side of the heart had no relation with the left, the pulmonary and general circulation being distinct; the only relation existing between them, consisted in the passage of a small portion of the blood, vivified by respiration, from the left ventricle into the aorta, through the ductus arteriosus, and a small quantity of the black blood from the right into the left auricle, through the foramen ovale, the valve not entirely closing this opening. The child exhibited the blue appearance indicative of derangement of the circulation.

PHYSIOLOGY.

5. *Experiments upon the Colouring of Different Tissues.*—M. Casimir Broussais, at a recent *concours*, had given to him, as the subject for his thesis, the following question. Can we distinguish by certain appearances in the dead body, the organic alterations which have commenced simultaneously with the disease, and those which are formed during its course, at the moment of, and after, death? In order to be enabled to answer this very important question, M. B. instituted a series of experiments, the conclusions derived from which we shall lay before our readers.

To treat this question clearly, usefully, and without repetition, M. B. thinks it convenient to divide the different lesions of the body into five species, as

follows: alterations depending upon, 1st, acute inflammation; 2d, subacute or chronic inflammation; 3d, atony; 4th, physical causes during life; 5th, the dissolution of the organs and the fluids after death. The following are the principal results of his experiments.

1st. *The tissues that are perfectly white and completely exempt from inflammation*, do not become red on exposure to the air, as Professor Laennec has asserted.

2d. *The white and healthy tissues* redden on maceration in blood, some with greater and others with less facility; but it is to be remarked that this red colour soon becomes deep brown, and livid, if the maceration be continued beyond a certain time; moreover, the diaphanous pellicle which forms the exterior covering of the serous membranes, and similar to that which forms the internal surface of the arteries and veins, also becomes coloured; finally, if the maceration be continued longer than one day, the tissue commences to be friable. But if the tissues reddened by maceration in blood be placed in pure water, at the end of twenty-four hours, there will not remain any trace of the colour.

3d. *The red and inflamed tissues* suffer on maceration in pure water the following changes: if they have a very slight redness, this disappears after maceration, and reappears on exposure of the tissue to the air; but if the redness be very bright and deep, it loses only a little of its intensity. Membranes with several spots of chronic inflammation, around which recent inflammation was developed, exhibited phenomena the most interesting and confirmatory of the principles of my father in relation to circumscribed local phlegmasiæ.

4th. *In the serous and sanguineous vessels*, the diaphanous membrane of which we have spoken, does not become red from inflammation, at least unless the irritating cause acts upon it directly, or unless in the progress of the disease, the redness has passed from the subjacent tissue to it, which is of very rare and difficult occurrence.

5th. *The redness caused by imbibition, from maceration*, is not rose-coloured, except at first; it soon becomes of a deep shade and livid; it is always uniform, and never in points or arborescent; finally, it readily and completely disappears on maceration in pure water.

6th. The redness from inflammation is sometimes arborescent and in points; but it is often also uniform, as the injection of ammonia into the carotid of a dog has proved. In this last case it may be deep coloured and black, but not livid, as when coloured by imbibition, and when it does appear similar to this last, it may be easily distinguished, since it does not disappear by maceration in pure water. If, on the contrary, it be light and rose-coloured, it then has a liveliness of colour which belongs only to it; moreover, although it disappears by washing like slight colouring from imbibition, it does so less readily; finally, what is a curious fact, if after this light redness has been made to disappear by washing, the tissue be exposed to the air, the colour soon reappears, which never takes place in tissues coloured by imbibition of blood.—*Annales de la Médecine Physiologique, January*, 1830.

—

6. *Very Remarkable Case of Twins.*—This singular case is related by Dr. De Meza, in the *Bibliothek for Laeger*, a journal published in Copenhagen, and edited by the celebrated Dr. C. Otto—we are indebted for a notice of it to the *Bull. des Sc. Med.* for January last. A very delicate woman, who had had many children, fell down a flight of stairs when in the fourth month of pregnancy; was attacked with pain in the loins, her left breast became flaccid, and she aborted—the fœtus was a female. Nevertheless the abdomen continued hard and enlarged, increased progressively, and all the symptoms of pregnancy were developed. Five months after the abortion she was delivered of a child, feeble, but viable. When seen by Dr. De Meza, a year and a half after his birth, he was affected with rickets. Dr. M. thinks that the mother had a double uterus.

7. *Researches on Pulmonary Absorption and Exhalation.*—M. Collard de Martigny, concludes from his experimental researches on this subject, 1st, that there occurs at the same time in the lungs an absorption of oxygen and an excretion of carbonic acid, of azote, and of serosity; an imbibition of oxygen and azote, and an exhalation of azote and of carbonic acid; 2d, that the two first of these actions constitute the functions of respiration; the two others are common to all the organic surfaces; 3d, the oxygen absorbed in the lungs immediately combines there with the blood, and does not circulate in its free state; 4th, the carbonic acid expired is a product of the assimilative decomposition, (*decomposition assimilatrice,*) secreted in the capillaries and excreted by the lungs; 5th, the azote expired appears to be a secretion from the blood itself, effected instantly in the lungs; 6th, the perspiratory serosity is deposited on the surface of the lungs by organic exhalation and dissipated by evaporation; 7th, the theory of Lavoisier respecting respiration is a gratuitous hypothesis; 8th, this function should be considered as a complete series of actions appertaining to the *general assimilation.*—*Révue Médicale, Feb.* 1830.

—

8. *Experimental Researches on the Gaseous Exhalation from the Skin.* By M. Collard de Martigny.—The gaseous exhalation from the skin is constantly in inverse proportion to the cutaneous absorption, and the proportion of the two gases which constitute this secreted air, varies much; sometimes it consists almost entirely of azote. M. Barruel says that he has never found this last gas; and according to Mr. C. in some cases, the proportion of carbonic acid is so great that it seems to be the only product of the cutaneous exhalation, as was supposed by Milly, Cruickshanks, Jurine, and Abernethy.

M. Collard de Martigny is convinced, however, that the nature of this exhalation depends upon the nature of the aliment. Thus, when an abundance of animal food is taken, the proportion of azote is very great; whilst after dieting, or after the long-continued use of vegetables, carbonic acid predominates. A number of experiments are related confirmatory of these views.—*Rév. Méd. Feb.* 1830.

—

9. *Vaccine Virus.*—Dr. Robert, physician to the Lazaretto at Marseilles, is of opinion, that cow's milk communicates to the variolous virus the properties of vaccine virus. Thirteen experiments have been made by him, and communicated to the Institute of France, which seem to show that the virus of variola and varioloid combined with cow's milk, when used for inoculation, produces only a local eruption, similar to that of vaccina, proving he thinks, that the vaccine disease originated in the accidental transmission of the variolous virus from man to the cow's teat, which is the cause of its mildness.—*Journal de Chimie Méd. March,* 1830.

—

10. *Small-pox occurring twice in the same individual.*—Dr. Oppert of Berlin, relates in *Rust's Magazin,* T. XXX. the case of a girl who at six years of age, had confluent small-pox. Seventeen years afterwards, she was again attacked with the disease, and it proved fatal during the suppurative stage.

PATHOLOGY.

11. *On the Morbid Anatomy of Fever.*—The *Glasgow Medical Journal,* for August, 1829, contains an exceedingly valuable and interesting memoir on this subject, by Alexander J. Hannay, M. D. Professor of Medicine in the Andersonian University. His observations might be condensed, but we depart from our usual practice in this respect, and give them entire, that the reader may be able to form a more precise estimate of their conclusiveness. The author does not offer unmeaning phrases and idle hypotheses in explanation of the phenomena of fever; he relates facts—and he solicits attention to them. The object

of this paper is to describe briefly the morbid appearances presented in the bodies of those dying of what has been called idiopathic fevers. These fevers, or "those febrile symptoms which the feeble eye of pathology, could not, at that time, trace to some 'local habitation' in the body, were supposed to be independent of the affection of a part; they were considered as depending upon causes affecting the whole frame. *Pathology now demonstrates that inflammation may proceed in many textures without presenting all the characters which nosologists deem so essential to it; nay, that important textures may suffer complete disorganization by inflammatory processes, without giving any local note of their suffering.* But though the local phenomena of inflammation escape detection, the sympathy that unites all the organs, developes symptoms by which its existence is made known. Such, in the opinion of many enlightened and experienced pathologists, is idiopathic fever; many pathologists, I say, maintain that fever is always dependent on some local inflammatory action, which, though itself eluding detection, developes a train of symptoms, in the important organs and textures which come under our immediate notice. It has been deprived of its essentiality and independent nature—reduced to the rank of a secondary or symptomatic disease. Without entering further at present into the merits of these views, I may be allowed to express my approbation of them, not merely on account of their establishment of uniformity and the infusion of principle into practice, but, as being most consonant to analogy, to the phenomena of the disease, and to the morbid appearances.

"There is much discrepancy of opinion as to the organs and tissues in which these inflammatory actions take place. The contents of the calvarium and spine, the nerves, the blood-vessels, and the mucous lining of the alimentary canal, have all individually been asserted to be the exclusive seat of the affections, of which the phenomena of fever are the constitutional or general indications. Some conceive that one texture is exclusively and invariably affected, whilst a more general view ascribes to the inflammatory conditions of any one of these organs, and textures, the power of developing the febrile symptoms.

"Morbid anatomy has been appealed to, in the settlement of this matter. But many circumstances retard the attainment of truth through this medium; the frequent complication of the disease stands foremost among these; next the *slovenly and careless method of conducting dissections;* and *lastly, the prejudices of observers who have espoused peculiar views.* Avoiding with all possible care the last two, I have attempted as far as inspection after death can, to unravel these complications, by observing if any texture or organ be constantly and invariably in a morbid condition, as some have asserted—and therefore more entitled to be regarded in the light of a cause; or whether they are only occasionally affected, and so may be considered as supervening, or viewed as a consequence of the febrile disease.

"There are few textures of the human body which have not in some cases of fever or another, been found in a state of disease. The brain and its membranes, the mucous lining of the air passages, the organs and membranes of the chest, the contents of the abdomen, and the pelvic viscera, have all suffered changes and destruction of their texture. The skin, the cellular membrane, and the muscular fibre, are frequently affected, and there is reason to believe that the bones have had organic disease established in their investiture and texture, during, and in consequence of an attack of fever. We shall examine the effects of these morbid appearances, one by one, and in detail.

"We begin with the contents of the *Cranium.* Simple vascular injection is by far the most frequent appearance in this cavity. The vessels are very large both on the dura mater and on the subjacent membranes. On tearing the attachments between the scull-cap and the dura mater, we frequently observe numerous red specks which have their origin in the blood, poured out from the orifices of the ruptured vessels. The brain also, and the membrane lining the ventricles, are more vascular than natural. Sections of the cerebral structure present innumerable bloody points. The venous tubes are gorged with blood,

and I have twice observed the arteries in a similar state. There is often fluid in the ventricles of variable quantity and appearance; I have seen from five to six ounces. It is at one time clear and limpid, at another of a pale red colour. In the more acute fevers of the tropics, the vascular action reaches such a degree of violence as to pour out blood between the membranes and into the texture and cavities of the brain, giving rise to apoplectic symptoms; this is occasionally seen even in the malignant epidemics of Europe. There is likewise an effusion often met with under the tunica arachnoidea: this membrane becomes opaque, and presents the appearance of an effusion of coagulable lymph.*

"The most part of the appearances we have described are referred to mere congestion; they are not considered as that disorganizing action which constitutes *inflammation;* this, however, presents itself under various forms.

"Increased vascular arborescence, and consequent redness, with thickening and opacity of the membranes in different parts; serous and bloody effusions into the cavities, or between the membranes, are the *vestigia* of inflammatory action, occasionally seen on inspecting those who die of the continued fevers of this country. There are likewise abscesses found in the texture of the brain, and I have seen some, and heard of many cases, where pus and coagulable lymph were diffused over the whole surface of the membranes.

"Portions of the brain present a softened appearance. The extent of the *ramollissemens* are very various, some not exceeding the size of a hazel nut, others an inch and more in diameter. In some cases, the brain is throughout unusually soft, infiltrated, or injected with serum. Sometimes it is firmer than in ordinary cases. The brain of a girl, who died of the common continued fever of this country in 1824, presented a most remarkable hardness, without any very unusual vascularity or appearance of disease in the other textures of the cavity.

"On dividing the medulla oblongata in the progress of the dissection, we have often a copious discharge of a limpid fluid from the theca vertebralis. I have repeatedly seen several ounces of this secretion gradually flow from the spinal canal. The difficulties of opening the spine have too often deterred me from inspecting the contents of its canal. In four inspections it was quite free from apparent disease. In one there was unequivocal softening in the lower part of the cervical portion, with increased vascularity of the meninges. This woman died convulsed and insensible in the early stage of continued fever. The minutest pathological scrutiny of the brain and spinal marrow I ever witnessed, was in one of the four cases above mentioned; the lad was seized with symptoms of continued fever, after exposure to contagion: he died in a few days convulsed and comatose; no morbid appearance of the cerebral organs or its appendix was found.

"I have examined the large nerves in several who have died of fever. Very often they have a redder aspect than natural; the redness is only partial. I have never seen any appearances which could be regarded as the effects of inflammation. In two individuals who died of typhus gravior of a most marked character, Andral found the semilunar ganglions deeply red and injected.

"I have attempted, in my investigations of those appearances, to ascertain their relation to the progress and periods of the disease. Individual experience can accomplish but little here; and I entreat the attention of future observers to this important matter. I think I have observed, that in those who die early in the course of the disease, there is little more than a simple increase of the vascularity, turgescence, and other marks of congestion. The effects of inflammation are usually met with in those who have undergone a protracted attack: and these are numerous and extensive, in proportion to the protraction of the disease. The cases in which Sir J. Pringle found abscess of the brain, were re-

* Morgagni observed this source of deception. I may remark that I have never observed effusion of coagulable lymph on this tunic, except in conjunction with purulent matter; others report they have. Where, however, *matter* was found effused on this membrane, I have observed attempts to limit its extension by flakes of this connecting medium.

markably lingering. The cerebral affections have been observed in the fevers of every climate; and their frequency has been construed into constancy of appearance. Hence some, as is now well known, wish to consider them as the pathological conditions of the body, upon which certain fevers exclusively depend. To establish this exclusive hypothesis, it would be necessary to show that cerebral disease is *always* present. Pathological investigation does not countenance such an opinion; it only proves that cerebral affection, though a frequent, is not an universal occurrence. I have had many convincing proofs of this, even in cases where the symptoms, during life, induced a belief that much cerebral affection should be found. In many of my inspections, not the slightest appearance of disease in this cavity was detected, whether the subject of them had lingered long, or sunk under an early attack. The testimony of many observers, who have specially directed their attention to this point, could be adduced to prove the absence of cerebral disease in cases of fever. It appears to me, then, that this hypothesis must be relinquished. Much benefit has accrued, however, from investigation in this direction. We are now well convinced of the frequent tendencies of disease to this important cavity, and how watchful an eye should be turned to it, in the progress and management of what are denominated idiopathic fevers. They, to whom therapeutic experience has shown the benefits of vigorous, yet judicious antiphlogistic treatment in such affections, will have proofs, almost to demonstration, afforded them of the propriety of such measures; and they who may be undecided amidst the conflict of opinion, will have their minds confirmed in principles of the highest practical importance.

"*Thorax.* The mucous lining of this cavity frequently presents morbid appearances after death from fevers. In a very large proportion of the inspections which I have witnessed, there existed increased vascularity and correspondent redness; sometimes thickening and softening of this tissue, and very frequently there is yellow purulent looking mucus smearing the trachea, or filling the bronchial ramifications. Inflammation of the pulmonary texture, and of the serous membranes of the chest, frequently supervenes in febrile diseases. Dissection then displays every consequence of congestion and increased action in the thoracic organs. Of these, I have met with simple *engorgement* of the parenchyma, with blood or serous fluid, (œdema pulmonum,) and *hepatization* of all degrees. The only case of gangrene of the lung I ever met with, was found in a man who sunk in fever of a typhoid character. We predicted, from the horrible and peculiar stench of the breath, that this state of the lung existed. Some writers speak of mortification of the lungs as by no means an unfrequent event. Eisfield, in particular, found it in many cases of those dying of the Leipsic epidemic, in 1799. It is, however, probable that he and others have mistaken the *softened* state of the lungs for gangrene of these organs. This very curious change of texture is certainly uncommon in fevers of this country, for I have never met with an instance in the numerous inspections I have witnessed. It resembles the texture of the spleen, reduced to a remarkable degree of softness—and therefore denominated, by Andral, '*ramollissement pultacé.*' He observed it most frequently in cases of 'adynamique' fever, or asthenic of Brown, and putrid of earlier authors. It does not present the same degree of disorganization as gangrene, and is exempt from the horrible fœtor, characteristic of that condition.

"I have seen almost every morbid appearance which results from inflammation of the pleura. Some of these, obviously the consequence of old affections, others no less unequivocally of recent origin, and going on during the fatal attack. Effusions of coagulable lymph, in form of bands and flakes, uniting parts naturally separate, are frequent *post mortem* appearances of our common continued fever; sometimes without any fluid, sometimes with sero-purulent effusion in considerable quantity. Andral found the fluid effused to have a bloody tinge in four cases, without any other trace of inflammation. The diaphragm is stated by Thiebault, to have been sometimes involved in the inflammatory affections of the fever which raged at Leghorn in 1804.

"I have never remarked any thing particular in the appearance of the heart. The softness of it is not greater than in many other diseases. The clots and blood which it and the large vessels contain, are various, but present nothing, as far as I can discern, capable of elucidating the nature of fever. The quantity of blood found in the heart varies from a few drops to a considerable amount; at one time it is fluid, at another coagulated; sometimes it is nearly of a black colour, at other times of a more florid hue. The speculations which have been hazarded by pathological writers on the morbid appearances of the blood in fevers, do not appear to me to merit recapitulation.

"It has been asserted, that redness of an inflammatory kind, on the inner coats of the arteries, is often met with in fevers. I have in many dissections directed my attention to this point, but never detected any appearance that could be referred to inflammation. The redness which does appear cedes to washing with water, a process which, when not protracted to maceration, has not the effect of removing the *blush* of an artery or vein unequivocally inflamed. It has been regarded by some as a mere dyeing of the vessel by its contents. The true nature of this red tinge, however, still demands investigation. It occurs occasionally in vessels quite emptied of blood. An experiment narrated by Andral, and which I have confirmed on repetition, proves that the redness is, at all events, due to a vital process of some kind or another. A blood-vessel, separated from the body, and filled with blood, does not assume this red hue, even after they shall have been many hours in contact.

"The affections of the thoracic organs come on at very different periods in the course of the disease. In our continued fevers, the pulmonary irritations supervene *gradually*, especially in cases referrible to contagion. In some epidemics during cold and moist seasons, they are early and common; and from the frequent exposures of an army, the histories of the febrile diseases attacking such bodies of men often present these complications. In conclusion, I may remark, that, with the exception of those of the mucous texture perhaps, there is not one of the morbid appearances in the organs of the chest which uniformly occurs. I have noted the absence of every one of them in the fevers of this country, and could refer to authors to show the same fact in other climates, and periods of pathological history.

"*Abdomen.* The serous texture or membrane of the abdomen sometimes presents the *vestigia* of inflammation. Various preternatural adhesions of the organs to each other, and of these to the *parietes*, are now and then found. Patches of coagulable lymph give a coating to portions of the serous surfaces, and sero-purulent effusion fills the cavity in various degrees. These inflammatory appearances, however, are not common, as I have witnessed more than fifty dissections of persons dying of the epidemics of 1816, 17, 18, and 19, in which no trace of inflammation of the abdominal serous membrane was discovered.

"The abdominal venous system is often gorged with blood. This has no relation to the inflammatory state, and occurs without any of its characters in the serous textures.

"The liver was most frequently free from disease. I have seen it participate in the state of venous congestion described, but with this exception perhaps, every morbid appearance I have observed in the livers of those who died of fever, was independent of the febrile affection. As to its secretion, its varied quantity and appearance set description at defiance—and nothing satisfactory can be deduced from this source.

"I have found the spleen enlarged and softer than natural; though it was most unfrequently free from disease. Andral's extensive experience presents a different result. He states that augmentation of volume and modification of its consistence, are at least as constant as the lesion of the alimentary canal. In some it was softened to an extreme degree, and in others gorged with black blood. I have seen it larger than natural, and very dense, and Andral has observed it as hard as liver, yet without any augmentation of volume.

"I have not regularly examined the pancreas. Where I have attended to this organ, I never saw any deviation from the ordinary appearance. It has been found enlarged, and injected with blood. In one case this condition coexisted with an enlarged parotid gland—a fact upon which an analogy between the pancreas and the salivary glands may be presumed.

"The mucous tissue or villous coat of the alimentary canal presented morbid appearances in *every* case I have inspected. They are very variable; increased vascularity—deviations from the natural colour—tumefaction, either extensive or partial—softening—and ulceration, were the most frequent.

"The most common appearance of the mucous tissue after death of fever, is increased vascularity, with thickening and softening of the membrane, and of its adhesions to the texture next to it; it is therefore easily lacerated or scraped off from these parts. The vascularity varies in degree; sometimes the vessels still preserve their outline, and present an arborescent appearance, the mucous texture in which they are ramified still retaining its natural, pale straw colour; at other times, from an extravasation and injection of blood into the texture of this coat of the intestine, it attains so great a degree of redness, that the vessels cannot be traced on it. In this state, it prevents the transmission of light, and appears of a dark colour through the serous coat of the intestine, which, when laid open, often presents the appearance of a thin layer of black currant jelly, spread over the surface of the canal. The extent of surface thus affected is extremely various. I have seen it occupy, in different degrees, the whole track of the stomach and small intestines; much oftener, however, it is of only limited extent, and of a less deep hue. The colour varies from a pale rose up to the dark red mentioned above. I have seen it in specks, and looking as if the part had been sprinkled with *red precipitate*.

"That all this vascularity and injection is in the mucous coat, is easily demonstrated; in removing, by dissection, this tissue, you leave the others quite transparent, and almost without a vessel. It is remarkable that portions of the mucous lining of the canal, between these morbid patches, often appear quite free from disease. Sometimes the intervening part, though pale, is thickened, easily scraped off, and obviously in a state of disease. I have more constantly met with these appearances in the duodenum and in the course of the ilium, than any where else—more frequently than in the stomach, where the mucous coat is sometimes of a purplish-brown colour, over a surface whose extent varies from the size of half a crown to the palm of the hand. I have seen this brownish appearance disposed in streaks of various breadth, following the arborescent course of the large vessels of the stomach; on other occasions it is in irregular patches. It is also found on the small intestines, where as well as in the stomach, it accompanies other morbid changes of the texture. I was at one time disposed to regard this condition as occurring only in those who lingered long in the disease, and as constituting an approach to gangrene, but it is met with in all stages—even the earliest.

"The mucous tissue is *thickened* over various extents, and in different degrees; sometimes in regular, often in most irregular patches. The thickened and projecting portions are sometimes red of various shades, and at other times of a pale yellow colour, even paler than the surrounding mucous texture; this, some consider as a termination of the inflammation of this texture in a kind of induration. These appearances I have most frequently found at the lower portion of the ilium.

"When the membrane is thickened, it is often remarkably soft or pultaceous, and this *ramollissement* may be accompanied either with a highly injected, or an exsanguineous state of the tissue. I have met with the pustular and papular elevations, which Lerminier proposes to call "internal exanthemata." They are like the variolous papula and pustule on the surface of the body. They appear to have a mucous follicle for their nucleus—to be a development of one or more of these bodies by inflammation. I have met some which seemed more superficial, and not to involve, or be connected with the follicles, in short, to be a pus-

tular eruption of the mucous coat, independent of these glandules. It may, however, be remarked, that these pustular looking elevations occur most frequently in those portions of the canal where the mucous follicles are most numerous, which countenances the opinion of those who refer them to development of these bodies by inflammation. It is highly probable, that many of the ulcers commence in these pustules; their top either bursts or is eroded, and from this, as a centre, the destruction proceeds.

"I have twice met with partial elevations of the mucous coat studded with black points, somewhat resembling the surface of a white strawberry. In both cases, these elevated portions were pretty numerous: some were larger than a shilling, and others not the tenth part of this extent. In one case, of which I have a delineation, there were numerous elevations on the mucous surface of the size of a large pin's head, from the centre of which a little black *queue* projected; the blackness of the tail had the appearance of being all exterior to the mucous coat.

"It were endless to mention every variety of excrescence on the alimentary mucous tissue of those who perish of fever. The most remarkable I have seen were dark granular masses, about the size of a little finger, firmly attached to the bands of the colon. They were very irregular, and covered with a layer of coagulated blood, which was readily removed. After maceration in water for twenty-four hours, they separated from the mucous coat, and were converted into clay-coloured masses, showing that they were secretions from, and not degenerations of that tissue, as they at first appeared. I have only seen this once. The woman had copious uterine hæmorrhage at the close of the disease, but no blood was noticed in the alvine evacuations.

"Ulceration is a most frequent result of these processes in the inner coat of the alimentary canal. The extent, form, and appearance of the ulcers are very variable. Sometimes they resemble a simple abrasion in patches of very different size and figure; at one time the edges are smooth and abrupt, at another rugged and unequally fringed; very often the margin is thickened and everted, or somewhat like the edge of a callous ulcer on the surface of the body. They affect the intestine to various depths, involving in succession the muscular and serous coats. There are cases in which a perforation of the intestine has been thus accomplished; of course, a fatal peritonæal inflammation was the consequence. The mucous surface surrounding the ulcers presents appearances of inflammation in by far the greatest number of cases; but we occasionally meet with them in the midst of mucous texture apparently healthy. The cases in which this occurred were always protracted; indeed, though observed in all stages of fever, they were most frequently found in those who had attained the advanced period of the disease. It does occasionally happen, that a single spot of ulceration is found, but for the most part there are several, which, if they be near each other, unite sooner or later, as their circumferences enlarge by the destructive process. They are met with in all stages of the disease. Their edges sink down and gradually approach each other, forming, by their junction, a little projection; this seems to be subsequently absorbed, and a hollow or depression remains. The site of such *cicatrices* can sometimes be detected on the outer or serous coat of the intestine, by the contraction and puckering.

"I have never found an abscess amongst the coats of the intestines, nor observed gangrenous destruction of the intestinal parietes in a case of idiopathic fever. The limitation of the inflammatory process to the mucous coat accounts for this, and affords another proof how exclusively that texture is the seat of the morbid conditions now under consideration; for were the other textures often affected, we should occasionally find puriform infiltrations or abscesses amongst the coats of the canal.

"The intestines are occasionally charged with secretions from the mucous texture, modified by its diseased state. These secretions are sometimes thin and watery, bloody occasionally, and often tinged with bile, and frequently also a viscid pale straw-coloured matter smears large portions of the mucous surface.

I have been often struck with the emptiness of the canal, where, had the patient lived longer, he would have been drenched with cathartic medicines, with a view of removing the loaded state that was supposed to exist.

"I have found two cases of introsusception, but without compression or inflammation of the exterior coverings of the intestine. In one case, (of a child,) the upper portion had descended into the lower to the length of two inches.

"The contracted appearance of the tube is often remarkable. Sometimes the stomach is reduced, in every direction, to half its dimensions. Its inner surface then presents numerous folds or plaits, usually of an unnatural colour. This state does not occur in every case of inflamed stomach or intestine, and I have found the intestine contracted to the size of a finger, yet without any apparent affection of its textures; very frequently large portions of the canal are contracted, and withdrawn, as it were, behind other folds, which are distended and projected to an enormous degree; the colon is often in this state, and when the cavity is laid open, is found to conceal nearly the whole of the abdominal contents. The mesenteric glands are frequently in an inflamed state, as was long ago shown by M. Petit. This is usually accompanied by some alteration of texture in the intestinal tube, probable always in that portion of it from which the vessels that pass through the glands take their origin. I have seen these glands indurated and enlarged; sometimes dark-coloured, sometimes of a pale brown, and of a dull ash colour. The last-mentioned appearance indicates a total destruction of their texture, and is accompanied by a semifluid matter of a dull or dirty white colour, enclosed in the external membrane of the gland, as in a little pouch, to which it usually adheres from its viscid or tenacious nature.

"I have repeatedly seen the mucous membrane of the urinary apparatus red and thickened.

"I once inspected a case of very protracted fever, in which innumerable abscesses were found in the substance of the muscles. No symptoms had indicated them during life; and the first evidence we had of their existence, was the section of one in the pectoral muscle in the progress of the dissection. Such are the morbid appearances of which I shall, in my next paper, consider the relation to the symptoms of idiopathic fever."

—

12. *Hernia of the Stomach, with Enormous Enlargement of that Organ.*—This case was communicated to the Royal Academy of Medicine by M. Yvan. The subject of it was a soldier, who for some years had had a scrotal hernia, which could be easily reduced by taxis, but could not be kept up; it gradually increased in size, and a month previously to his death repeated vomiting took place, which could not be arrested, although there was no strangulation, and the patient died. On examination, the abdominal ring was found to be enormously distended, measuring eighteen inches in circumference; the hernial sac contained the inferior third of the stomach, the greater omentum, the small intestines, and the large intestine, except the iliac portion of the colon, the cœcum, and the rectum. The stomach, situated parallel to the axis of the body, was of an enormous volume, and seemed divided by a circular depression into two portions; the one situated in the abdomen, the other in the hernial sac. The length of the great curvature of the stomach was three feet, that of the lesser curvature eighteen inches; its circumference at its largest part twenty inches, and contained nearly eleven pints, *(five litres,)* of fluid. Longitudinal and circular muscular fibres were observed on the surface of this organ. M. Y. deposited the stomach in the Museum of the Academy.—*Archives Générales, Jan.* 1830, *and Révue Médicale, Feb.* 1830.

—

13. *Crepitating Rattle.*—According to M. Guersent, two conditions are necessary for the production of the crepitating rattle; 1st, a certain viscidity of the bronchial humour, the small bubbles of which are successively broken by the passage of the air; 2d, sufficient energy in the expiratory forces. The absence of this last condition in old men, the bronchiæ of whom are besides very much di-

lated, renders the crepitating rattle a very rare occurrence in them even in pneumonia. The lungs of children, for the opposite reason, may become the seat of the crepitating rattle, even without the existence of any inflammation of their parenchyma. The great viscidity of the expectoration in pneumonia, a peculiarity much insisted on by many authors, and among others by Laennec, appears to support the opinion of M. Guesne, respecting the conditions necessary to the formation of the crepitating rattle.—*Révue Méd. Feb.* 1830.

—

14. *Poisoning by Cantharides in Powder, followed by the Expulsion of the Mucous Membrane of the Œsophagus.* By M. Rouquairol.—A shoemaker, aged forty-six, poisoned himself, June 8th, 1826, by swallowing cantharides. Three hours afterwards, when Dr. Rouquairol saw him, he was affected with the following symptoms; burning heat of the mouth, throat, and stomach; pains in the kidneys and bladder, with incessant but ineffectual desire to void urine; mouth excoriated; ptyalism; nausea, vomiting; tongue trembling; convulsive movements; priapism; contracted and frequent pulse; in the matter vomited, portions of mucous membrane and of cantharides could be recognised. Dr. R. administered half a pint of olive oil, and soon afterwards twenty grains of ipecacuanha, which induced vomiting. He gave the olive oil because it dissolves the active principle of the cantharides, is an article not easily digested, and is much less readily assimilated than milk or any other similar substance. The quantity of the poison taken had evidently been large, judging from the quantity seen in the matters vomited. The patient was afterwards forced to swallow two pints of olive oil, and half an hour afterwards two ounces of castor oil; these produced copious evacuations from the bowels, containing a large quantity of cantharides; the doses of olive oil and castor oil were repeated, and with the same results. Evening. Convulsive movements; continual priapism; bloody urine; febrile heat of the abdomen; frequent contracted pulse; subsultus tendinum; pains in the throat, stomach, kidneys, and bladder continue. Ordered olive oil by the mouth and anus, ten leeches to the neck, twenty to the epigastrium, and twenty to the perinæum; afterwards patient to be placed in a tepid bath for three-quarters of an hour.

The next day there was a slight abatement of the symptoms, except the pain in the bladder; thirty leeches were applied to this part, and flaxseed tea for drink, emollient enemata, and a tepid bath were ordered. Evening. More calm—but at eleven o'clock vomiting recurred, and the entire mucous membrane of the œsophagus was discharged.

June 10th. Better; same prescription as last night, except the leeches; deglutition extremely painful.

The patient from this time gradually improved, and on the 22d of June he took some solid food. He now enjoys perfect health, better than he did before his poisoning, when he was affected with a chronic duodeno-hepatitis, which at times became acute.

Not the least interesting and remarkable circumstance in this case is the expulsion of the mucous membrane of the œsophagus, which took place with much pain, accompanied with the discharge of blood. Its middle portion for an inch and a half was entire, and formed a tube, the extremities of which were ragged. Some particles of cantharides were adhering to its internal surface, on its external surface, blood-vessels running longitudinally, as also folds or pleats in the same direction were perceptible. One of these vessels was so large, that blood was pressed out of it after puncturing it with a lancet; this membrane could not of course have been an adventitious one.—*Annales de la Médecine Physiologique, Oct.* 1829.

—

15. *Meningitis and Abscess in the Left Corpus Striatum.*—A labourer, fifty years of age, of a strong constitution, was admitted into the Hôtel-Dieu, November 14th, after having been affected during a fortnight with continual head-ache, especially on the left side. His manner and external appearance ex-

hibited nothing unusual, his appetite was very good, and he complained only of restlessness, head-ache, and constipation. He was bled, and took an aperient mixture; this not being followed by any relief, he had, on the 17th, twenty-five leeches applied to the anus. During the following night, he was seized with bilious vomiting; the head-ache had not, in the least, abated. Appl. hirud. xx. post aures. Sensibility and muscular power were not in the least impaired; the patient complained, however, of violent pain in the limbs when they were moved; the vomiting and costiveness still continued. On the 22d the head was covered with ice, sinapisms were applied to the feet, and a poultice to the abdomen. The head-ache and violent pain in the limbs on the least motion continued as before; the face was not distorted; the tongue easily put out in a straight direction; speech was feeble, but articulation distinct; the slightest touch of the head caused the most excruciating pain; his mind was not in the least affected, and he appeared to be perfectly sensible. In this state he remained without any alteration; the sickness and head-ache were undiminished; the limbs neither paralysed nor contracted; the head only was slightly inclined towards the left side; he died rather suddenly on the morning of the 29th without a struggle. *The intellectual faculties were unimpaired to the last moment.*

On examination, the brain was found rather voluminous, the pia mater much injected, and, at the pons varolii, infiltrated with thick yellowish matter. The cortical substance was of a pink colour, and rather softened; the medullary substance injected. The lateral ventricles contained about two ounces of very thick greenish purulent matter, the pia mater lining them was apparently inflamed. The external side of the left optic thalamus was ulcerated, and covered with similar matter; the left corpus striatum was larger than usual, greatly softened, and contained a purulent excavation; the parietes of the third and fourth ventricles were evidently inflamed, the cerebellum rather soft, and somewhat injected.—*Lancet Française.*

—

16. *Case of Otitis, with discharge, terminating in the formation of Abscesses within the head.*—A man, aged twenty-four, was admitted into St. Thomas's Hospital, Dec. 11th, 1829. From infancy he had been subject to discharge from his ear, and latterly it had been constantly attended with a disagreeable smell. During this time, he experienced considerable pain in his head; indeed, so much so, that at times he was quite frantic; and blood was sometimes discharged from his ear. Within the last fortnight, he has been scarcely ever free from pain. On admission, he had a swelling on the left side of the head, particularly above the ear, first observed about two weeks ago. An obscure sense of fluctuation could be perceived—a puncture was made, and a small quantity of rather offensive matter evacuated. A poultice was applied to the part. The next evening he became restless; delirium supervened; he became unconscious of what was going on around him; the following evening he was attacked with convulsions, sunk rapidly, and died.

Inspectio Cadaveris.—On examination of the head externally, the periosteum was found denuded from the squamous plate of the temporal bone, nearly two inches in diameter, while the temporal muscles was in a sloughy state. On opening the cranium, a circumscribed abscess was found between the dura mater and bone, corresponding to that which was situated externally: this contained upwards of half an ounce of unhealthy looking pus, having an offensive smell. The middle cerebral lobe corresponding to this, was of a green colour, and softer than natural: when cut into, an abscess was found, about the size of a hen's egg, containing fœtid pus. The posterior lobe on the opposite side was also cut into, and gave exit to a quantity of pus; and on continuing the examination after the brain had been hardened by alcohol and a horizontal section, made so as to expose the lateral ventricles, a communication was found between the abscess and neighbouring ventricle. On inspection of the ear, the meatus auditorius externus showed long fungous granulations, arising from the membrana tympani; but a minute examination did not detect a communication between the external ear and the abscess between the dura mater and skull.

17. *Case of Uterine Phlebitis, with Inflammation of the substance of the Uterus, and Pus in the Absorbents.*—A woman, aged about thirty, was admitted into St. George's Hospital, under the care of Cæsar Hawkins, Esq. July 1st, 1829, with sloughing of the skin to some extent over a diseased bursa of the patella. The bursa was removed, which was a quarter of an inch thick, and a granulating surface established without much constitutional disturbance. On the 14th she was delivered of an ill-grown child, which soon died.

"On the 16th, symptoms of puerperal peritonitis of a low character made their appearance, which was fatal on the 18th; the pain, I understand, was completely relieved by bleeding, but she never rallied after the commencement of the attack.

"Some puriform lymph was found in the pelvis, but with no increase of vascularity in the peritoneum. A considerable quantity of the same kind of fluid was situated round the whole of the lower part of the uterus beneath the peritoneum, and in the cellular membrane among the fibres of the uterus, but none had been effused at the fundus.

"In the broad ligaments some fluid was also effused, and on each side numerous large absorbent vessels were discovered passing up with the spermatic vessels to the receptaculum chyli, which was unusually distended. All these vessels and the reservoir itself were quite filled with fluid pus, but that in the receptaculum was mixed with lymph so as to be more solid; the vessels themselves were firmer and thicker than usual. The thoracic duct above this part was quite healthy, and contained only transparent lymph. The spermatic and uterine veins were all healthy. The uterus was scarcely contracted at all, and the internal surface of the lower half was soft and shreddy, and in a state of slough. The upper part, where no pus was found externally, was also healthy, or nearly so, on its inner surface. The rest of the viscera were healthy."

—

18. *Phlegmasia Dolens in a Male.*—A. Copland Hutchison, describes in the 15th Vol. of the *Transactions of the Medico-Chirurgical Society of London* the following case.

Mr. B. received a blow upon his right shin, about twelve months ago, immediately over a branch of the saphena vein, by a small piece of timber accidentally falling upon it. The scar is very slight, though the injury and its results appear to have been severe, and the patient states that the accident was followed by considerable swelling and inflammation all over the limb, and that the abraded surface was very long in healing. Mr. B. says he first felt pain in the direction of the upper third of the saphena before it actually dips to unite with the femoral vein. The whole leg and thigh soon became enlarged and inflamed, the former partly œdematous; and although the patient states the disease to be slowly on the decline, yet the enlargement of the thigh and leg still continues, and he has pain from the groin to the heel and sole of the foot, principally in the direction of the branches of the saphena, with a slight blush of redness over the fore part of the leg, where the original injury was received; but while the member is kept in the horizontal position he is nearly free from pain.

I have traced the upper portion of the saphena vein, and find it to be a complete ligamentous cord for eight or ten inches, but the femoral vein seems to me to have hitherto escaped the diseased action. The patient has no pain or uneasiness within the pelvis, and his general health is good. It should be stated, however, that the testis of that side is slightly enlarged, but not indurated.

Dr. G. R. Treviranus also relates in the 5th Vol. of the *Heidelberg. Klinische Annalen* two cases of this disease occurring in men. Dr. T. considers the disease to be a catarrhal affection of the cellular tissue surrounding the muscles, and of the mucous sheaths.

—

19. *Dengue.*—In a communication published in our third volume, page 242, Professor Dickson, of Charleston, expresses his belief in the identity of the epi-

demic which prevailed in Calcutta, and its environs, in 1824, with the dengue. We have just received the first volume of the Transactions of the Medical and Physical Society of Calcutta, in which we find an account of this epidemic by James Mellis, M. D. and we think that no doubt can exist as to the correctness of the opinion of our esteemed coadjutor. Dr. Mellis describes the disease as sparing scarcely any, of either sex, or of any age. "The new-born infant," he says, "the aged—the weak and the robust—the rich and the poor—those reduced by disease to the lowest state of existence, as well as those under the influence of medicine, and unusual discharges from the system—all were alike the objects of its attack; for no condition nor circumstances of any sort seem to have availed in preventing it."

Its invasion was very sudden. "The patient, in many instances," says Dr. M., "when eating his meal, or soon after, and with no preceding diminution of appetite, is seized with lassitude, drowsiness, slight vertigo, a sense of coldness creeping down the back, or numbness in the extremities—occasional rigors—pains in the head, and in different parts of the body, sometimes in the larger muscles and joints, and occasionally in the smaller, such as the fingers and toes. The pulse, tongue, and skin, which at first are not so much affected, soon change from their healthy condition to that of disease. The pulse becomes frequent, full, and hard, averaging about thirty or forty strokes above its natural rate. In some cases, the increase is much greater, and the temporal arteries are felt to beat violently. The skin becomes hot, often intensely so, without the least tendency to perspiration;—the eyes appear suffused more or less;—the face reddens, and the tongue is of a scarlet colour at the sides, and furred with white or brown in the centre. The head-ache, in some instances, and the pain in the back and loins, are the most distressing symptoms; while in others, the intolerance of light—the excessive thirst, disagreeable taste in the mouth, and general uneasiness, are most complained of. The bowels are generally costive; and in some cases, oppression at the præcordia, nausea, vomiting of viscid mucus and of bile, attend the disease at its commencement, and for some time after."

Among the sequelæ of the disease, Dr. M. notices prostration of strength, and general debility of the whole system, weakness of the stomach, of the limbs, continued pains in the joints, and œdematous swellings in the extremities.

The skin was not only turgid, and "of a red scarlet colour, but in many instances an eruption or rash appeared on different parts of the body, of a similar colour, and of various extent. For the short time it remained it was attended with some degree of heat and itchiness, particularly when the small exfoliations of the cuticle began to appear."

The salivary glands were, in some individuals, swelled, and the discharge of saliva was very considerable. In one instance swelling of the scrotum and testicles took place.

MATERIA MEDICA.

20. *On the Morbid Phenomena caused by the use of Iodine.* By Dr. Jahn.—"The author of this paper, published in the *Journal Complem.* for Feb. 1830, informs us that in the part of country where he resides, there prevails a species of bronchocele which, to all appearance, is a simple hypertrophy of the thyroid gland. He affirms that this affection is never seen where the water springs from ground that is basaltic, porphyritic, granitic, or gravelly; whereas it is constantly observed where the waters issue from calcareous soils, and contain a quantity of lime in mixture. Iodine is the remedy which is generally employed for bronchocele in this part of the country, and he has had ample opportunities, he says, for remarking its effects on the animal organization. Orfila showed that this powerful medicine, in large doses, occasioned pains in the stomach, ma-

laise, vomiting, diarrhœa, syncope, oppression, ptyalism, tremors, &c. Symptoms of this kind were observed by our author in a man who had swallowed, by mistake, an inordinate dose of the tincture of iodine. In other cases where the medicine was merely continued longer than proper, Dr. J. was struck with the slow but great absorption of fat, preceded and accompanied by an augmentation of all the secretions and excretions. He observed the skin became dark-coloured, and the perspiration viscid—the breathing embarrassed—the urine abundant—the bowels loose and very bilious—the catamenia, (in females,) more copious. From these phenomena our author argues that the functions of the venous and absorbent vessels are much increased, in proportion as the nutritive system has been diminished. The blood, he says, becomes thinner than natural, and less abundant in fibrin. If the medicine be continued in these cases, various bad consequences ensue. He mentions two cases where he opened the bodies of patients who laboured under the excessive use of iodine, and where the emaciation was extreme, and the viscera in a very flabby state. Still Dr. J. considers the medicine in question as one of the most valuable which has been discovered within the last hundred years. Indeed he terms it 'un remède divin.'

"In scirrhus of the pylorus Dr. J. affirms that iodine has sometimes removed the malady, when early applied, and when aided by leeches. The same has been stated by Wagner, Henneman, Hufeland, and others. We would strongly recommend the medicine in question to be tried in dropsical cases dependent on visceral obstructions."—*Med. Chirurg. Rev. April*, 1830.

—

21. *New Mode of Preparing Medicines with Sugar.* By M. Béral.—At the meeting of the Royal Academy of Medicine, on the 9th of February last, M. Guibourt made a report on a new mode of preparing remedies with sugar, by M. Béral, pharmaceutist of Paris. M. Béral makes at first tinctures of the medicinal articles with alcohol and ether; these tinctures are afterwards poured upon sugar broken in small pieces; the alcohol and ether is then evaporated, and the medicinal principles which they held in solution, remain with the sugar. M. B. thus obtains a medicinal sugar, which may be granulated or powdered for use.

The committee regard these preparations as very useful, and consider them as possessing the following advantages; 1st, they contain the medicinal principles isolated from the substances employed in their preparation; 2d, the medicinal principles are separated from the stimulating articles in which they were dissolved; 3d, they are soluble in water; 4th, the doses can be determined with accuracy; 5th, many of the medicinal syrups, in which the dose of the medicine is not well known, may be replaced by sugar saturated with this medicine in determined proportions; 6th, these preparations may be substituted for the oleum saccharum, used at present to give an aromatic flavour to many medicinal preparations.—*Journal Général de Médecine, March*, 1830.

—

22. *Formulæ for Preparations of Sarsaparilla.* By M. Béral.—MM. Baget and Robinet have presented to the Academy of Medicine, a report on some formulæ of M. Béral, for preparations of sarsaparilla, from which we derive the following particulars. By macerating thirty-two ounces of sarsaparilla in sixteen pints of alcohol, at 20 degrees, M. Béral obtained four ounces of a very beautiful and sapid extract, which appeared to him to contain all the necessary qualities, and to present a very natural base for all the preparations of sarsaparilla. The committee have repeated the experiments of M. B. and with precisely similar results, and they also adopt his conclusions. The following are the considerations upon which they found their opinion. By treating a like quantity of the same sarsaparilla with cold water, they obtained one ounce and four drachms of extract. On comparing this with the alcoholic extract, it was easy to ascertain their comparative value as medicinal preparations. By dissolving both in water, observing the proportions in which they had been obtained from the sarsaparilla, it was evident that the alcoholic extract was much more aromatic

and bitterer. Finally, if we consider that the alcoholic extract represents eight times its weight of sarsaparilla, it may be conceived that its employment offers advantages in relation to the simplicity of the proportions. Thus by dissolving one drachm of this extract in one pint of water, we have a solution of sarsaparilla, which represents one ounce of this root. By dissolving two ounces of extract in fourteen ounces of alcohol, at 20 degrees, we have a tincture, each ounce of which represents one ounce of sarsaparilla. The syrup is prepared in an analogous manner.

From these examples, it is evident to what a degree of simplicity M. Béral has reduced his formulæ. "It is important to remark here," the committee observe, "that the proportion of one part of extract to eight of sarsaparilla, being that which root of good quality gives, when the alcoholic extract is employed, we are much surer of obtaining identical preparations, than when we calculate upon the proportions of sarsaparilla. In fact, sarsaparilla may be good in itself, but contain so large a proportion of amylaceous principle, that it will furnish only a tenth or a twelfth of its weight of extract. If this sarsaparilla be employed in the same proportion as that which gives one-eighth of extract, it will evidently produce a very inferior preparation. To destroy this reasoning, it would be necessary to demonstrate that the properties of the sarsaparilla do not reside in the odorous and sapid principles, but in the woody fibres, the starch, and the gum, which remain after the treatment with alcohol."

M. Béral proposes a new process for the preparation of the compound syrup of sarsaparilla.

Among the formulæ of M. B. is one for the vinous extract of sarsaparilla, or portable tisan of sarsaparilla, which the committee think offers some advantages.

The committee obviate the objection which might be urged against the alcoholic extract on account of its price, by observing that it may be prepared more economically, by distilling the tincture so as to collect the alcohol; but they judiciously observe, that if the preparation be a superior one, its cost ought not to be an objection.

The committee state that from their own experiments, as well as those of M. B. and also of M. Soubeiran, the red sarsaparilla is preferable to the other varieties met with in commerce.

The following are the formulæ of M. B. which the committee recommend as preferable to those now in use.

No. I. Extract of sarsaparilla by alcohol, or hydrocoholic extract of sarsaparilla.—℞. Alcohol diluted to 20 degrees, 16 pounds; sarsaparilla cut in pieces, 2 pounds. Macerate the sarsaparilla in the diluted alcohol for a month; then decant and filter through paper. Afterwards distil this tincture to separate the alcohol, and concentrate the remaining solution in a water-bath, to obtain a soft extract, the quantity of which is usually four ounces. A little before finishing the concentration of the extract, and whilst it is sufficiently liquid, it should be filtered a second time.

With this extract, solutions or tinctures are made, having definite proportions of sarsaparilla.

No. II. Vinous extract of sarsaparilla.—℞. Spanish wine, 15 ounces; extract of sarsaparilla, 1 ounce; total, 16 ounces. Dissolve and filter.

No. III. Syrup of sarsaparilla, or rather syrup of the extract of sarsaparilla.—℞. Extract of sarsaparilla, 1 pound; water, 8 pounds; white sugar, 15 pounds —total 24 pounds. Place the water and extract into a basin, and slightly heat it to facilitate the solution of the extract. Add then the sugar, and keep it warm until the whole is dissolved; when cold, pass the syrup through a sieve. Twenty-four ounces of the syrup represent one ounce of extract, and eight ounces of sarsaparilla. One ounce of the syrup represents one scruple of the extract, and eight scruples of sarsaparilla.

No. IV. Improved sudorific syrup of Cuisinier.—℞. Extract of sarsaparilla, 1 pound; hydroolic syrup prepared with sugar, 8 pounds; hydroolic syrup prepared with honey, 7 pounds; hydroolic tincture of sarsaparilla prepared according

to the following formula, 8 pounds. Put the whole into a basin, and concentrate it by heat to about 16 pounds of syrup. One pound of this syrup represents eight ounces of sarsaparilla, two drachms of senna, two drachms of the flowers of borrage, two drachms of pale rose flowers; and two drachms of aniseed.

Hydroolic tincture for the preparation of the preceding syrup.—℞. Aniseed, fennel seed, flowers of borrage, pale rose flowers, of each six ounces; boiling water, twelve pounds. Infuse the articles in the water for twelve hours, and filter through paper.

No. V. Vinous extract of sarsaparilla, commonly called *Portable tisan of sarsaparilla.*—℞. Extract of sarsaparilla, 1 pound; good wine, 3 pounds. Dissolve and filter.

To prepare the tisan.—Take water, 4 glasses, vinous extract of sarsaparilla, two spoonfuls. Six ounces of this tisan represent two ounces of sarsaparilla; one glass contains half an ounce of the sarsaparilla.

No. VI. Sudorific mixture of Dr. Smith.—℞. Sarsaparilla, 8 drachms; China root, liquorice, guaiac, and sassafras, of each 2 drachms—total 16 drachms.

Sudorific extract of Dr. Smith.—℞. Diluted alcohol at 20 degrees, 16 pounds; of the preceding mixture, 2 pounds. Treat it similarly to the extract of sarsaparilla.

No. VII. Vinous sudorific of Dr. Smith, commonly called *sudorific rob, concentrated essence or liquid extract of sarsaparilla.*—℞. Of the above extract, 1 pound; good wine, 7 pounds; volatile oil of sassafras, 64 drops. Shake the oil and wine together, dissolve the extract in the mixture, and filter.—*Journal de Chimie Médicale, March*, 1830.

—

23. *Balsam of Copaiba.*—According to M. Gerber, of Hamburg, there are sixteen species of *Copaifera*, all of which furnish the copaiba of commerce, but especially the *C. multijuga*, Mart., *C. jacquini*, Desf., *C. langsdorfii*, Desf., *C. coreacea*, Mart., and *C. bijuga*, Hayne. The best copaiba is produced in Brazil, and the kind most esteemed is entirely colourless, but this is kept by the Brazillians for their own use, and is not exported. The second quality is of a pale yellow, and is the best that is sent to foreign countries.—*Bull. des Sc. Med. Feb.* 1830, *from Archiv. des Apotheker. Tom. XXX.*

—

24. *Gum Ammoniac.*—M. Szowits has discovered in the Steppe, near Nakhitcheran, the plant which furnishes this medicament. It is not an *Heracleum*, as asserted by Willdenow, but a *Ferula* with the seeds not alated; it has leaves resembling the *Laserpitium siler*, and umbellæ disposed in spiciform paniculæ. M. S. has obtained from this plant gum ammoniac; he names the plant *Ferula ammoniacum.*—*Bibl. Univ. de Genev. Nov.* 1829.

—

25. *Taste of Sulphate of Quinine.*—M. Schweinsberg states in *Geige's Magazin für Pharmacie, for Oct.* 1829, that the best mode of correcting the bitterness of the sulphate of quinine is, not to mix it with syrup, but with an aromatic powder. The sulphate of quinine is so intensely bitter that a mixture of one part of this salt with one hundred and sixty parts of sugar is still sensibly bitter; but if one part of the salt be mixed with ten or fifteen parts of powdered *valerian*, fennel, aniseed, orange peel, &c.; the mixture possesses scarcely any bitterness.

—

26. *Phosphate of Quinine.*—Dr. Harless, of Bonn, has found the phosphate of quinine, (slightly acid,) a much pleasanter remedy than the sulphate of quinine, or the free alkali. The phosphate, he says, agrees better with irritable stomachs, with nervous persons, or with those who are subject to irritations or inflammations; its employment does not produce the uneasiness which sometimes follows the administration of the sulphate. It does not so readily accelerate the actions of the heart, or irritate the bronchia or lungs. On account of

its insolubibity, it must be given in powder or pills—the dose is from one to four grains.—*Bull. des Sc. Med. from the Heidelberg. Klinische Annalen, Tom. IV.*

27. *Mudár.*—Bamboo Ram Comel communicated to the Med. and Phys. Society of Calcutta, at their meeting in May, 1829, an account of this medicine. The tree from which it is obtained is of three kinds; one found in the high lands of the upper provinces, and two in Bengal Proper, of which the appearance and qualities in a medicinal point of view nearly resemble the former. They are distinguished from each other by the colour of their petals; the one being red and the other white, the latter of which is much the largest in point of size. The use of mudár was at one time very extensive among native practitioners: but a story having gone abroad of a man's being poisoned by sitting under the tree, and another's dying after taking some of the milky juice administered as a purgative, it has fallen into disuse, and is now considered a dangerous remedy when taken internally for whatever disease. It has been used chiefly in eruptive disorders, rheumatism, and general debility. It is heating, and a powerful purgative, and given in desperate cases only when all other remedies have failed. In obstinate constipation of the bowels, half a drachm of the milky juice mixed up with sugar and flour has been found efficacious. In asthma, and other diseases of the chest, it has likewise in this form been administered successfully. In dropsy, the flower given with black pepper has been found serviceable. The juice externally applied to boils hastens their masturation. Herpes in its various forms is likewise cured when rubbed with it. Applied to rheumatic joints, the leaf often affords relief when other means have been resorted to in vain. The lower classes of natives sometimes soak gram and peas in the juice and dry them in the shade; a few grains of these causes copious evacuation of the bowels.

PRACTICE OF MEDICINE.

28. *On the use of Iodine in Morbid Growths.* By B. Brodie, Esq.—Mr. Brodie says that he has employed iodine as an internal medicine in a great number of cases of morbid growth, without any manifest effect arising from its exhibition. "In two cases, however, and in two only, it was productive of the greatest benefit, effecting that which I should scarcely have supposed that any medicine was able to accomplish.

"In one of these cases, which I attended with Mr. Pennington, the patient laboured under a tumour on one side of the tongue, and imbedded in its substance, of about the size of a nutmeg, of an irregular form, hard to the touch, and having a well-defined margin. The disease had existed between one and two years, gradually making progress; and it had resisted the internal use of arsenic, as well as a course of sarsaparilla, combined with oxymuriate of mercury. As the surface of the tongue was furred, and there were some other symptoms which seemed to indicate a deranged state of the digestive organs, we prescribed, in the first place, the pilula hydrargyri, with a gentle aperient, and a light bitter with soda. Under this treatment the tongue became clean, but there was no perceptible alteration in the local disease. We then administered the tincture of iodine three times daily, in moderate doses, gradually increased. In a fortnight the tumour was evidently smaller, and at the expiration of about eight weeks it had nearly disappeared. The patient was sent into the country, being directed to continue the use of the iodine for some time longer. This was upwards of four years ago, and I have not seen the patient since; but I have been informed that the cure is complete.

"The second case was that of a man who was admitted into St. George's Hospital, on account of a tumour, situated on one side, a little below the axilla.

It was of the size of a small orange, unattended by pain, bearing no marks of inflammation, and quite moveable beneath the skin. Having removed it by the knife, I found, on making a section of the tumour, that it was composed of a brown solid substance, of a firmer consistence, and to all appearance more highly organized than fungous hæmatodes, and of an uniform structure throughout, except that externally it was covered by a thin membranous cyst closely adhering to it. Some time afterwards the same man applied at the hospital a second time, having two tumours on the neck, each of the size of a double walnut. These bore no resemblance to the common enlarged glands which occur in this situation, and so exactly resembled that which had been removed from the side, that no one entertained a doubt as to their being exactly of the same nature.

"Conceiving that there were some obvious objections to a second operation for the removal of a disease so manifestly depending on a constitutional cause, and knowing nothing better to be done, I prescribed the tincture of iodine to be taken internally. Under this course of treatment, which was continued for several weeks, the tumours gradually diminished in size, and ultimately disappeared. I have heard nothing of the patient since; but as I told him that he should be received into the hospital again whenever he applied for that purpose, I think that in all probability he has had no return of the complaint.

"I have no right to say, that in these cases the tumours were of a malignant nature; at any rate, they were not malignant tumours of the worst kind. I have however, exhibited the tincture of iodine in many cases of truly malignant disease, and in a few instances, as it appeared, not without some temporary advantage. For example, I was consulted concerning a lady who was supposed to labour under a tumour of the breast: I found, however, on examination, that the breast itself was in a healthy state; and that in this, as in some other cases which have fallen under my observation, the apparent enlargement of the breast was the consequence of its being elevated by a tumour beneath it. The tincture of iodine was given internally, and under its use the tumour became so much reduced in size, that I had the credit with the patient and her friends of having cured an obstinate disease. The amendment, however, was of short duration. Soon after discontinuance of the medicine, the tumour began again to increase in size; and the iodine, which was a second time administered, had now no dominion over it. The patient ultimately died, and on inspecting the body it was ascertained that there was a medullary or fungous tumour, which had its origin in one of the ribs below the breast and pectoral muscles. The same disease existed also in other parts of the body."—*Seymour's Illustrations of the Ovaria.*

—

29. *Nitre as a Remedy for Scurvy.*—In a letter, or report, from Mr. Charles Cameron, a naval surgeon, to the Navy Medical Board, (with a sight of which report we have been favoured by one of the medical commissioners,) there is given an account of a severe scurvy which broke out among the convicts on board the Ferguson transport, on her passage from Ireland to New South Wales, and which threatened to depopulate the crew, till fortunately it was checked by a solution of nitrate of potash in vinegar, or in a mixture of vinegar and lemon-juice. The convicts, two hundred and sixteen in number, were embarked on the coast of Ireland, in November, 1828, and were then in a low state of health, from deficient nourishment and the depressing passions. Bad weather was experienced on the early part of the voyage, and the convicts suffered greatly from sea-sickness. Their constitutions were thus still further debilitated, and before the ship crossed the equator, the hospital was full of scorbutic patients, and many others were confined to bed, in a dangerous state. The disease assumed a variety of forms, or rather a number of other complaints became engrafted on the scorbutic diathesis, and were thereby rendered much more formidable. Dysentery, however, was the most prominent feature or form, and affections of the lungs were also very common. Two of the men died of the

scorbutic dysentery. When they were preparing to bear away for Rio Janeiro in order to procure refreshments for the sick, Mr. Cameron tried an old remedy recommended by Patterson many years ago, in his Treatise on Scurvy—namely, nitre. The common stock of this being soon exhausted, a supply was procured from the gunpowder on board. The effects Mr. Cameron describes as almost miraculous—so much so, that they abandoned the idea of putting into Rio, and pursued their course to New South Wales, where the convicts landed in unusually good health. The formula and mode of administration will be seen in the following extract:—

"But I might add, that the most distressing symptoms which my patients complained of, in the early stages—namely, a sense of 'oppression and sinking at the pit of the stomach'—were almost invariably relieved, or totally removed, by a few doses of the medicine. The prisoners themselves were so sensible of its good effects, that I had, for the first time, an opportunity of seeing men crave for medicine, the taste of which was certainly not pleasant; and their complexions were so much improved under its use, changing from a sallow, bloated hue, sometimes approaching to livid, to a clear, healthy colour—that it became matter of surprise to every one.

"The medicine was prepared and exhibited in the following manner:—Eight ounces of nitre were dissolved in so much vinegar as would make the solution amount to sixty-four ounces. Sometimes equal parts of vinegar and lime-juice were used. A little sugar was generally added, to render it more palateable; and about four drops of ol. menth. piperatæ, diffused in a small portion of alcohol, was added to the whole, which rendered it more grateful to the stomach.

"One ounce of this solution was the dose, and was seldom exceeded. From three to eight doses, according to the stage of the disease and the severity of the symptoms, were given at equal intervals during the day—from six o'clock in the morning till eight at night. In general, when the disease was taken early, two or three doses a day, for a week or ten days, were sufficient; but it appeared to me to be always better to commence with three or four doses, and increase the number gradually—daily if necessary. In the advanced stages, a much larger quantity may be taken, and is in fact required, than at the commencement of the disease; but although I have often given the solution to the extent of eight ounces daily, and on one or two occasions exceeded this quantity considerably, and have at the same time watched my patients very closely, I never observed any irritation of the stomach or bowels, or any other inconvenience which could be fairly attributed to it. It is, nevertheless, adviseable to dilute each dose with two or three ounces of water when exhibited. While the constitution is thus being corrected and improved, particular symptoms will require the usual attention.

"It is perhaps proper to notice that about two years ago I had occasion to give a solution of nitre in water a fair trial, in several bad cases of scurvy, where neither vinegar nor lime-juice could be obtained; and, except that sometimes it did not appear to me to sit so easy on the stomach, with the same good effects on the disease."—*Medico-Chirurgical Review, April*, 1830.

—

30. *Case of Ileus Cured by Crude Mercury.*—A lady, aged 44, had been for some years subject to attacks of colic, for which she generally had recourse to spirits. On the 19th of September she was seized with colic, accompanied by constipation: the pains increased, and were exceedingly severe on the 21st, when Dr. Ebers was sent for. The patient had then violent pain, which came on in paroxysms, and was chiefly seated in the vicinity of the umbilicus, and in the right iliac region. The pain was not increased by pressure, and there was little fever. There was constant vomiting, but no trace of hernia. She was bled generally and locally, and laxatives with antispasmodics were administered, while fomentations, embrocations, and enemata, were also had recourse to. None of these, however, brought relief, and next day there was stercoraceous vomiting. Ten drops of laudanum and croton oil were given, the external ap-

plications being continued. Still no relief. On the morning of the 23d, an ounce and a half of quicksilver was administered, with ten drops of laudanum; at the same time some castor oil was given in the form of emulsion, and oleaginous clysters were injected. At noon, no stool having been procured, two ounces more of the quicksilver were taken. At two o'clock, some inflammatory symptoms having come on, she was bled. At five, no change. A little feculent matter had come away with the enemata, and some gurgling was heard in the bowels. Some aloes and hyoscyamus were given in solution. At ten o'clock, no change: three ounces of quicksilver with ten drops of laudanum, were then administered, the mixture above-mentioned being continued. On the 24th, at four in the morning, copious evacuations took place, with immediate relief. Up to the 27th, the dejections contained indurated feculent masses, and it was not till these gave place to a diarrhœa, that quicksilver was seen in the stools.—*London Medical Gazette, March*, 1830, *from Hufeland's Journal.*

—

31. *Treatment of Extensive Burns.*—Dr. Dorfmuller, of Furstenau, extols in the 5th Vol. of the *Heidelberg Klinische Annalen*, the following remedy recommended by Professor Knackstedt as the best topical application in extensive burns. Its effect is sedative, and if too long continued, it is never productive of injury. ℞. Extr. Saturn. Ol. Olivar, āā q. pl. Aq. rosar. suffice. quant. ut triturando f. Liniment. If some places should suppurate too copiously under the use of this ointment, the following ointment may be used. ℞. Flor. Zinc. Pulv. Lapid. calaminar., Lycopodii. āā ʒj. Myrrh., Sacch. Saturn. āā ʒss. Axung. porc. aq. rosar. lot. ℥jss. m. D.

—

32. *Frontal Neuralgia cured with Extract of Belladonna.*—M. J. Claret relates in the *Révue Médicale*, for January last, five cases of frontal neuralgia, cured with extract of belladonna applied by friction over the part.

—

33. *Paralysis of the Face.*—M. H. Montault states in the *Révue Médicale* for January last, that he was attacked in August, 1829, with paralysis of the face, from an affection of the portio dura of the seventh pair, and that he has been entirely cured by the employment of galvanism. The particulars of the case are given, but they do not present any thing remarkable. We have to regret, however, that the particulars of the application of the galvanism, and the direction of the currents are not stated.

—

34. *Ascites cured by the External Application of Digitalis.*—M. Raisin has cured two cases of dropsy by frictions with the tinctures of digitalis and squills. One of these patients was attacked at the same time with quartan fever and gastritis—in the other the dropsy had resulted from abdominal inflammation. The state of the gastric passages would not permit any of the stimulating remedies proper to excite the secretion of urine, to be taken. M. R. had recourse to the iatraleptic method, which produced an abundant flow of urine, and the ascites disappeared after a treatment of from two to three months.

M. Dan de la Vanterie has obtained a similar effect from the long-continued application of the fresh leaves of digitalis bruised, to the thighs and lower part of the abdomen.—*Bull. des Sc. Med. Jan.* 1830.

—

35. *Head-ache.*—M. Ricord recommends as a cure for this affection a quarter of a grain of morphine in cold sugar and water. M. Mérat has treated four cases with success by this remedy.—*Archives Générales, March*, 1830.

—

36. *Ergot of Rye as a Febrifuge.*—Dr. Mehlhausen, of Deutsch-Eilaw, recommends, in the 29th Vol. of *Rust's Magazin*, the ergot as a remedy for intermittent fevers. In seven cases in which he employed this remedy, five were cured. It must be confessed with no great success. He gives the remedy in the

dose of ten grains repeated three times in the two hours which immediately precede each paroxysm.

37. *Clinical Reports of the effects of Venesection in the cold stage of Intermittent Fever.*—This report was made by Mr. Twining to the Medical and Physical Society of Calcutta, at their meeting in December last, and comprehends ten cases.

Case. 1. Was bled to twelve ounces in the cold stage of the 6th paroxysm of tertian intermittent. He experienced immediate relief, the rigors ceased, and he became hot for about half an hour; he had a slight return of fever daily at noon for six days, not preceded by rigor or cold. This patient had enlarged spleen.

Case 2. Was bled to fourteen ounces in the cold stage of tertian ague in the 4th paroxysm. The rigors soon ceased, he had a slight hot stage for about half an hour, and there was no return of the disease.

Case 3. Was treated with purgatives, quinine, and arsenic, afterwards with mercury to salivation, without benefit; bled in the cold stage of the 11th paroxysm, he felt immediate relief, and had a very short and slight paroxysm without sweating stage. A slight feverish feel remained for eight days after. At the end of fourteen days, he had a return of ague, and on the return of next paroxysm, after one day's interval, he was bled in the cold stage, and cured.

Case 4. Quotidian ague of seven day's duration, purged and took bark, bled to eighteen ounces in the cold stage of 7th paroxysm with great relief; was exposed to cold next night, and had continued fever afterwards.

Case 5. Tertian ague, bled to ℔i. in the cold stage of the 5th paroxysm, with immediate relief; had a short and slight paroxysm, and was cured.

Case 6. A most distressing tertian, with very severe rigors; bled ℔i. in the cold stage and cured.

Case 7. Irregular ague, sometimes tertian, sometimes quotidian, bled to twelve ounces in the cold stage, with much benefit, he was cured, having in place of ague on the two next days of expected access, a slight feverishness.

Case 8. An Asiatic, a native of Madras, bled to six ounces and a half in the cold stage of 2d paroxysm of tertian. The rigors ceased in less than two minutes after the vein was opened, he had no fever, and was cured.

Case 9. Irregular intermittent, used quinine without benefit, emaciated, bled to six ounces, in cold stage, with immediate benefit, and had no return of the disease.

Case 10. Bled to ℔i. in the cold stage of 6th paroxysm, the cold ceased, and he had a slight paroxysm. The ague returned on its regular day, and he was bled again to ten ounces, in the cold stage, which was arrested, and had no ague or fever since.

Mr. T. enters on some remarks as to the benefit to be expected from guarding against the ulterior results of repeated congestion of internal organs. He also observes, that further experience is requisite to prove whether the treatment be adapted to all cases of ague, at all seasons, and in all situations, or to persons debilitated by disease and long residence in India. Mr. Twining usually has dr. ss. of sp. ammon. aromat. mixed with oz. i. ss. of warm water ready, in case the patient be faint; he says this is rarely used; but that the patients appear better for drinking a cup of hot sago or tea within half an hour after the bleeding.

OPHTHALMOLOGY.

38. *On the Treatment of certain Injuries of the Eyes.* By Samuel Barton, Surgeon to the Manchester Eye Infirmary.—In cases in which the cornea has been punctured by a sharp body, and the capsule of the lens wounded at the

same time; and also in those cases in which, without any penetrating wound of the cornea, the capsule has been ruptured, and the lens forced into the anterior chamber, Mr. Barton recommends the early extraction of the lens, as the means of affording the patient the best chance of escaping with the least injury of vision and deformity. The usual mode of treating such accidents is generally to subdue inflammation, by venesection, leeching, &c. and waiting for the absorption of the lens. This practice, though admitted by Mr. B. to be sometimes successful, he says in a majority of cases we shall have to contend with a tedious and severe inflammation in the first instance, and eventually an obliterated pupil, with a thickened capsule, adhering firmly to the iris, that cannot be dislodged, and not unfrequently suppuration of the eyeball.

"My attention was directed to the improved treatment of these cases of early extraction of the lens," says Mr. B. "from comparing the advantages with the disadvantages, resulting from the different operations for cataract. From observation I found that more inflammation of the eye, and more constitutional disturbance, ensued from the operations for the depression of the lens, and for its solution, than from extraction, whenever the last operation was well performed.

"It will be an objection with some surgeons to interfere with a single cataract, when the vision of one eye is perfectly good, and in most cases of spontaneous cataract I should agree in this opinion; but in the accidental cataract I should, from experience, recommend the operation of extracting the lens without delay. My mode of performing the operation varies very little from that of the usual manner of extraction; but in making the incision in the cornea, I am governed with respect to the extent of it by the state of consistence of the lens, and the situation of the wound of the cornea.

"As in young subjects, the lens will be generally soft, if the situation of the original wound of the cornea produced by the accident be not unfavourable, a smaller division of the cornea will answer the purpose than when the lens is hard. When the accident takes place in an old person, we have reason to expect to meet with a harder lens, consequently a larger division of the cornea is required, provided that the nature of the case will admit of it.

"In performing the operation, I generally use Beer's extracting knife, and having carried the point into the centre of the pupil, I then raise the handle of the instrument so as to depress the point, and keep it there for a few moments, until I have ascertained whether the lens will escape, by merely making a slight pressure with the knife kept in this position—and in many instances this takes place. If I find that the lens is too hard to pass, I extend the incision before I withdraw the knife, and finish the operation with the scoop.

"Although I am an advocate for extracting the lens early in such cases, there are certain injuries of the cornea in which it will be necessary to wait until some reparation has been made: for instance, when the cornea has been divided by any rough cutting instrument, producing an angular wound with ragged edges, it will be desirable to wait and employ those measures which are the most likely to restore union.

"After my early operations, I dressed my patients either with a wet cloth, or a plaster of simple cerate, and a bandage placed lightly over the eye. By such loose dressings it is scarcely possible to keep the eye in a sufficiently quiet state till perfect union of the cornea shall have taken place; and it was evident to me, that I had not only very great difficulties to encounter in the after-treatment, but that the operation of extraction failed in some cases in consequence of such dressings. I therefore determined to employ those means that were the most likely to keep the eyelids steady, without producing pressure, and thereby promote the union of the wound of the cornea by the first intention.

"After the pupil has been cleared of the lens, the eye is to be treated as in cases of extraction; and the plan that has proved the most successful in my practice is to place two slips of court-plaster, four inches in length, and a third of an inch broad, in a perpendicular direction across the eyelids of both eyes.

"This I find to be the best dressing, since without occasioning pressure or uneasiness, it at the same time allows the discharge of any fluid.

"If the process of healing be not interrupted, we shall find in the course of three or four days that all discharge has subsided. The patient will sometimes complain of a pricking sensation in the lids, and it will then be necessary to remove the plasters carefully, and replace them by new slips; but in changing the plasters, the eye should not be opened for an examination until the fifth or sixth day after the operation.

"Since I had recourse to this dressing after the operation of extraction, my cases have been very successful, and attended with less trouble and anxiety, than when I have operated by depression or solution; and I can confidently recommend it when either the cornea has been opened to make an artificial pupil, or in injuries from accidental circumstances; and the same applications of the slips of court-plaster will be found advantageous, by those who prefer the operations for depression or solution."—*London Medical Gazette, March*, 1830.

—

39. *Amaurosis.*—A young female was, at the beginning of November last, brought to the Hôtel Dieu on account of a complete amaurosis after a blow on the right eye with a whip. No wound could be discovered; the conjunctiva was slightly ecchymosed, the pupil dilated and insensible, and vision completely destroyed. The humours of the eye were perfectly transparent. She was bled, and had leeches applied to the temples, but without any immediate benefit. On the third day, however, she began to distinguish light, and, after a few days more, vision was almost completely restored.

Cases of amaurosis, M. Dupuytren observed, after contusions of the eye, are by no means unfrequent; but it is worthy of remark, that this effect should sometimes be met with in cases where the external violence appears hardly sufficient to produce such an effect. Thus, corks of champaigne bottles, striking against the eye, have, in some instances, produced amaurosis, and a similar cause exists, perhaps, in all cases of so-called spontaneous amaurosis, which take place suddenly. M. Dupuytren mentioned another case of amaurosis after a blow with a whip, where there was apparently no wound, but considerable ecchymosis, and swelling of the conjunctiva; violent inflammation succeeded, and in spite of the most active antiphlogistic treatment, terminated in the evacuation of the humours, in the midst of which one of the knots of the whip was discovered.

—

40. *Evacuation of the Humours of the Eye by a Wound, with Restoration of Sight.*—This very interesting and remarkable case is related by Baron Larrey in his *Clinique Chirurgicale*, a work just published, and from which we shall extract some other instructive cases. A sergeant of the fifth regiment of the Royal Guard, fell on the morning of the 20th of March, 1821, against a pile of muskets, and struck his left eye against one of the locks; the globe immediately burst, and was almost entirely emptied; the man mechanically carried his hand toward the eye, and found in it some glairy matter, in the middle of which was a whitish globular body, which according to all appearances, was the lens. He washed his eye with cold water, covered it with a bandage, and was carried to the Hôpital de la Garde Royale, a few hours after the accident. On examination M. L. found the eyelids ecchymosed, the conjunctiva red and swelled, and the globe collapsed; there was a wound at the inferior half of the cornea, through which the iris was prolapsed, and from which there was a constant discharge of an albuminous fluid mixed with blood; the bottom of the eye was of a dark red colour. The patient complained of violent pain in the orbit and whole left side of the head. The eye was washed with cold water; the iris, the internal margin of which was torn from the ciliary ligament, was reduced with a golden stilet, the edges of the wound in the cornea were brought into contact, the eye kept closed, scarification made in the eyelids, and blood taken from the temporal artery. The patient was placed in a dark room, took cooling draughts, and

had ice applied over the head, and sinapisms to the feet. Under this treatment the pain in the orbit and head-ache subsided, and he had about an hour's rest. Towards the evening he became feverish, and was again freely bled. The ice and cooling potions were continued. On the next morning, symptoms of cerebral inflammation having manifested themselves, he was cupped between the shoulders; the other remedies were continued, and the bandage not removed before the ninth day, when M. L. found, to his great surprise, the globe almost of its natural size. The aqueous humour still escaped through the wound, on the edges of which there were some irregular membranous fragments, probably of the membrane of the aqueous humour, which were removed by the scissors. The patient said he could distinguish the light. The eye was again closed, and covered with a compress, dipped in camphorated wine, and an aromatic poultice applied to the left temple and supra-orbital region. The other remedies, as well as the application of ice were continued, and the patient repeatedly cupped. On the sixteenth day, the bandage over the eye was again removed; the pupil was irregular, the iris motionless at the inner and lower portion; but its external half contracted perfectly well; its interior margin presented a semilunar fissure of a line and a half in breadth. The patient said he could distinguish objects very well, though they appeared to him as if divided longitudinally. The eye was now again covered with a simple bandage, and daily washed with a decoction of poppy-heads, containing a small quantity of camphorated wine. Under this treatment the inflammatory symptoms gradually disappeared. On the twentieth day after the accident, the wound in the cornea began to cicatrize, and after a few days more, was perfectly healed. From this period the globe recovered its former size and form; the pupil was drawn towards the temple, but perfectly sensible at its outer portion. Sight was perfectly restored, except that the patient was obliged to use concave glasses, and that when he looked at objects before him, they appeared to him to be divided. On the 15th of May he left the hospital to resume his duties as sergeant, and on the 29th of the same month he was presented to the Societé Philomatique.

—

41. *On the Use of the Essential Oil of Lemons in some of the Diseases of the Eyes.*—From experiments made at Berlin, M. Werlitz thinks that the essential oil of lemons may be advantageously employed in the treatment of the following diseases of the eyes. 1st. Inflammations of the eye which are passing into the chronic state, and which affect the external parts, as the conjunctiva, cornea, or sclerotica, particularly if the small vessels be turgid. M. Werlitz has also found the remedy useful in the rheumatic, gonorrhœal, and scrofulous forms of ophthalmia; in pannus and pterygium; in albugo, and opacity of the cornea; and in cases where the texture of the cornea has lost its healthy density, and becomes soft and spongy. The remedy may be employed frequently during the day, depending upon the degree of irritation it produces.

The following is the manner in which M. W. applies the remedy. He cuts a slice of lemon peel, about an inch long and half an inch broad, places the upper part opposite the affected eye, and the eyelids being opened, squeezes out the little drops of volatile oil contained in the tissue of the rind into the eye. The sensation produced is acute, and continues for an hour or two. If the pain caused should be severe, cold applications are to be employed. The effects attributed to the oil of the lemon-peel, are those of increasing the capillary circulation, and causing the absorption of morbid depositions.—*Journal für Chirurgie und Augenheilkunde.*

—

42. *On the Employment of Ice in the Ophthalmia of New-born Children.*—M. Rust, in Vol. XXX. of his *Magazin*, states that the application of ice has produced excellent effects in the commencement of purulent ophthalmia of newborn infants, especially when the inflammation is principally seated in the eyelids, and these latter are much tumefied. Trials of the remedy have been made in the Charité at Berlin.

SURGERY.

43. *Case of Tetanus caused by a Foreign Body imbedded in the Ulnar Nerve.*—A young man was struck with a whip over the arm, so as to produce a slight wound at the anterior surface of the forearm, just over the ulnar nerve. This soon healed, and left a small elevated cicatrix. A short time afterwards, however, the individual was brought to the Hôtel Dieu affected with tetanus, the cause of which could not be ascertained. The case ended fatally, although the most extensive antiphlogistic treatment was employed. The post mortem examination gave no clue respecting the origin and termination of the disease; the brain, with its membranes, as well as the spinal chord, were perfectly healthy, &c.; it occurred, however, to M. Dupuytren, to examine the cicatrix on the forearm, in which he was surprised to find a knot of the whip imbedded in the substance of the ulnar nerve, the irritation of which had undoubtedly been the cause of the tetanic affection.

—

44. M. Dupuytren's *Opinion of the Comparative Advantages of Union by the First and Second Intention after Amputation.*—During the past winter many cases of amputation, either of the upper or lower extremities, have occurred at the Hôtel Dieu, in Paris. These operations have afforded M. Dupuytren an opportunity of explaining his views on the comparative advantages and disadvantages of immediate and secondary union. He remarked that the older surgeons were not acquainted with the difficulties which induce operators of the present day to hesitate between these two methods. They were not in the habit of preserving integument enough to cover the bones, and therefore never thought of immediate union. This method only led to the formation of a weak and imperfect cicatrix after suppuration. At a later period the healing was conducted more methodically, but still was delayed by the interposition of substances more or less irritating between the lips of the wound; thus causing suppuration to a greater or less extent. The idea of placing the edges of the wound in apposition, and producing immediate cicatrization, is due to Benjamin Bell, who practised it in 1772, while it was converted into a general principle by Alanson, in 1779. This method was adopted in an exclusive manner in England, and received in Germany with enthusiasm, under the sanction of Graefe. In France it met with more opposition, but having been adopted by Desault, and practised by many of the military surgeons, came to be regarded as preferable to the old method of union after suppuration. Nevertheless, it is only by the result of trials on the great scale, and by a rigid comparison of cases, that this question can be decided; and this mode of inquiry is far from being favourable to union by the first intention.

M. Dupuytren is convinced that more cases of amputation are lost when immediate union is attempted, than where suppuration is allowed to take place. He has had occasion to compare the results, *en masse*, and these have led him to the conclusion just mentioned. Of thirty amputations of various members, in which union by the second intention was practised, only six died. Of twenty-nine others, where union by the first intention was attempted, nine died. Similar observations have several times been made by M. Dupuytren. These results have generally been obtained in individuals who have been operated upon for diseases which had produced copious and long-continued suppuration, as disease of the joints, caries, large ulcers, a set of cases such as are wont to be met with in civil hospitals. It is impossible to change suddenly a long-continued habit of suppuration without danger. Inflammations of the viscera, more or less marked, with or without the formation of matter, have very frequently followed. The drains that have been established in such patients some time after the operation, have not succeeded in saving them, and too often a fatal result has followed where it might have been arrested by a different mode of dressing the stump. Phlebitis, so often a fatal disease, according to the experience of

M. Dupuytren, is more common after union by the first intention than when suppuration has been allowed to take place.

It is acknowledged that the success of military surgeons has been great in practising the method of immediate union, but it is held that the class of patients, and of injuries with which they have to deal, are essentially different from those met with in civil life.

The result of all these considerations has led M. Dupuytren to the determination of only employing immediate union in a small proportion of cases, returning in general to the old mode of dressing the wounds; that is to say, not allowing them to heal till after suppuration. This he accomplishes by introducing a certain quantity of fine charpie between the lips of the wound, which are approximated to within a short distance of each other by adhesive straps: the charpie is only removed when it is detached by the formation of matter. By this method, he thinks the suppuration to which the patient has been habituated, not being suddenly arrested, prevents the occurrence of subsequent mischief.—*London Medical Gazette, March*, 1830, *from the Journal Hebdomadaire.*

—

45. *Excision of the Neck of the Uterus.*—M. Richard, of Nancy, Chief Surgeon of La Charité, has performed this operation on a woman aged thirty-six, who had been afflicted for some time with symptoms of incipient cancer of the uterus. On examination, he ascertained that the posterior lip of the os tincæ was three times its natural thickness, that there were many ulcerations in the mucous membrane, and that the periphery of the orifice of the uterus was covered with a yellow, hard, coriaceous tissue. This yellow discolouration, M. R. says is characteristic of schirrus in parts covered with mucous membrane. M. Richard excised the uterus according to the method of M. Lisfranc; the wound entirely healed by the sixteenth day, and the period when M. R. communicated the case to the Medical Society of Lyons, the patient had menstruated twice, and appeared to enjoy perfect health.—*Bull. des Sc. Méd. Jan.* 1830.

—

46. *Case of Injury of both Hemispheres of the Brain.*—This case is related by Henry Maunsell, Esq. in the *Edinburgh Medical and Surgical Journal*, for January last. The subject of it, a stout man, aged twenty-two, had been discharging a yeomanry musket rather overloaded. In the explosion, the breech of the gun was driven forcibly from the barrel, and its direction being changed by the resistance of the screw that attached it to the stock, the flat extremity of its cylindrical portion struck the middle line of the frontal bone a short distance above the level of the superciliary ridges, and, penetrating into the substance of the brain to the depth of an inch and a half, carried with it a piece of bone, three-fourths of an inch in diameter, which was exactly its own size. The shoulder of the breech, behind the cylindrical portion, being an inch and a quarter in breadth, the bone, on either side of the circular wound, was irregularly broken, so as to admit of its passing through, and the brain of course correspondingly injured. A short time after the shot had been fired, he was found by his father, fallen forward against the wall on which he had rested the gun, but perfectly sensible. Portions of brain, and some blood were sprinkled on the stones in the vicinity. The father and another person who was present, assisted by the patient himself, made several attempts to remove the piece of iron from the wound, but without success. They continued their efforts, however, for an hour, and often, as they informed me, with force sufficient to have raised half a hundred weight.

About an hour and a half after the accident, Mr. Hunter arrived, and, by using some address, soon removed the foreign body. A cavity was then exposed, into which he introduced his little finger as far as the second joint, and, having felt the piece of bone, he extracted it by the forceps, drew the flaps of skin together, and placed a poultice over the forehead. At this time the surface of the patient's body was cold, and his pulse weak; he was,

however, perfectly sensible, and did not complain of pain. After the dressing, vomiting came on, which produced a slight discharge of blood. At 5 o'clock, P. M., about five hours after the occurrence of the injury, I saw him. Reaction had evidently commenced; his skin was warm; the pulse 78; and he had head-ache. The brain had risen into the opening, and could be seen pulsating strongly; small portions of it were smeared over the face and eyelids; and blood was trickling from the nostrils. He was bled to ten ounces, which sensibly affected the pulse; a light fold of lint wet with cold water, was substituted for the poultice, and perfect rest and abstinence enjoined. It was remarkable that the use of the lancet appeared to give very great pain.

The patient passed a quiet night, was subsequently judiciously treated by venesection, cold applications to the head, and strict diet, and gradually recovered. When the account was written, (July, 1829,) he was in perfect health, "attending to his ordinary business, and living in his usual manner, without ever suffering the slightest pain or uneasy sensation traceable to the injury. A considerable depression, in the bottom of which is a small T-shaped cicatrix, remains in the forehead, directly above the root of the nose, marking the spot first struck by the extremity of the gun breech. This extends nearly equally on both sides of the central line, and is about ten lines in breadth. Above, and to the right of the cicatrix, the bone is deficient for an irregular space of more than an inch in diameter. In this spot the pulsations of the brain can be seen from a distance of several feet. By gentle pressure on the integuments, the fingers can be sunk into the aperture of the bone, but without producing any unpleasant effect."

This case is interesting, not only in a surgical point of view, showing how much injury the brain can bear under certain circumstances, but also in relation to phrenology. "The principal depression occupies the situation of the organs of upper and lower individuality, and on the left side extends to that of size. On the right side the bone is deficient, and there is a slighter depression over the organ of locality. After close and frequent observations upon the man himself, however, and examination of his family and associates, I have not been able to discover the slightest alteration in mental power. He pursues his usual avocations as formerly, attending to his farm, and occasionally weaving, and exhibits no appreciable deficiency in memory or acuteness of perception. Since his recovery, he has been attending an evening school, and asserts that he finds no change whatever in his capacity for acquiring knowledge."

—

47. M. Dupuytren's *Treatment of Hernia Humoralis.*—Many patients affected with inflammatory swelling of the testicles after gonorrhœa, have lately been admitted at the Hôtel Dieu. The history of the cases individually are of little interest, on which account we abstain from giving them; and only advert to the subject to notice the remarks made by M. Dupuytren as to his general treatment of such affections. He directs from twenty to forty leeches to be applied on the scrotum, as nearly as possible on the part corresponding to the testicle; and this application is repeated two or three times, if necessary. Fomentations, poultices, low diet, and diluent drinks, with confinement to bed and the maintenance of the testicles in the support of a suspensory, are rigorously adopted. M. Dupuytren never, on any occasion, practises the method recommended by some, of introducing a bougie into the urethra, by way of irritant, and suffering it to remain there;—a sound or bougie so used, seldom restores the discharge, while it often augments the irritation of the testicles, sometimes even causing formidable mischief. Thus he has seen cases in which individuals have died of other diseases during the time they were under treatment for swelled testicle, by means of bougies left in the urethra: in them the vasa deferentia and vesiculæ seminales were filled with pus.

The result of M. Dupuytren's practice has been very successful, seldom requiring more than a few days for its completion; whereas the former method often lasted six weeks or two months.—*Lond. Med. Gaz. March*, 1830, *from the Jour. Hebdom.*

48. *Sequel of "A Case of Carotid Aneurism, where the Artery was taken up above the Tumour."** By ALEXANDER MONTGOMERY.—"June 10th. The patient complains of stiffness of throat, with difficult deglutition, which was attributed to his exposure in the open air after previous long confinement. An anodyne was exhibited, and volatile liniment was used without good effect; on the contrary, the pain and stiffness extended to the right angle of the lower jaw. A blister was applied, and he was purged with temporary relief.

"13th. Slight purulent discharge from the wound; jaw continues stiff, with swelling of the parotid gland and discharge of saliva from the mouth. Emollient cataplasms, astringent gargles, &c.

"18th. Wound entirely healed; other symptoms continue. Continue poultice, gargle, &c.

"26th. Considerable purulent discharge from the mouth, proceeding from the parotid gland, in consequence of which the gland has become soft and decreased in size. From this period, tonic medicines, anodynes, and occasional aperients, (as symptoms indicated,) with a light nutritive diet, were given, and the cataplasm or hot fomentations and gargle continued. His health seemed to amend until two o'clock on the morning of the 3d of July, when he was suddenly attacked with cough, and expectoration of florid blood to the extent of six ounces, accompanied with sinking of the pulse, and every appearance of approaching dissolution. Sulphuric acid, mucilaginous mixture for the cough, &c. were given with some relief. The cough, however, continued, with expectoration at times mixed with blood, as also the discharge of purulent matter from the mouth. The debility increased until five o'clock of the evening of the 12th July, when he expired. At two the following day the body was inspected in the presence of a majority of the gentlemen who witnessed the operation, and several others.

"*Dissection.* In order to expose the seat of the disease with the greatest accuracy, an incision was made from shoulder to shoulder, and another was carried from the centre of the chin to the sternum, dividing the integuments into two flaps, which were thrown up and backward to the angles of the jaw. The muscles separated from the clavicles and sternum, the clavicles separated from their articulations; and the sternum was removed after sawing through the ribs. By these means a perfect view of the parts in their relative situations was obtained.

"No vestige of the aneurismal sac remained; the artery and vein were obliterated, the former from its bifurcation as low as its origin from the aorta, between which and the arteria innominata, a distinct aneurism of the aorta of the size of an orange was discovered; the rupture in the vessel was completely closed by organized coagulated lymph, which had formed an obstacle to the further escape of blood from it into the sac, and in consequence of which the contents of the sac had become putrid and offensive. The right carotid artery had become much enlarged. Thickening of the cellular substance surrounding the vessels; extensive adhesion of lungs; watery effusion into the cavities of the chest; pericardium distended, and containing ten ounces of sero-purulent fluid; heart soft, its surface covered by a thick layer of a curdy-looking purulent matter, and coagulated lymph; inner membrane of the trachea rough and thickened; the bronchiæ filled with a frothy purulent-looking fluid. An abscess containing about an ounce of ill-conditioned pus at the right angle of the lower jaw, with a destruction of the cellular substance surrounding it and the parotid gland."—*Medico-Chirurgical Review, April*, 1830.

—

49. *Excision of the Elbow-Joint.*—In our preceding volume, p. 228, we noticed some observations of Mr. SYME, on the subject of the excision of carious joints, and published a case in which the elbow-joint had been successfully ex-

* See last No. p. 242.

cised. Since that period Mr. Syme has performed this operation in four more cases.

50. *Excision of the Knee-Joint.*—Mr. Syme considers the knee-joint so far as regards its structure as an equally favourable subject for excision with the elbow, since there is only one articulation concerned in the disease, or affected by the operation, and not a number, as is the case in the wrist or ankle. But the advantages from the operation in this situation, are, he observes, "much more questionable than in the shoulder or elbow, since not only is there much less difference between the utility of a natural leg and a wooden one, than between that of a real and artificial arm, but doubts may even be entertained as to the probability of deriving any assistance in progressive motion from the limb, which is preserved by cutting out the knee-joint. With the exception of the two cases operated upon by Mr. Park of Liverpool, nearly fifty years ago, and the two cases lately published by Mr. Crampton of Dublin, I am not acquainted with any recorded facts to guide us in deciding this question. Each of these gentlemen lost one of their patients, but the others survived and retained limbs so useful, that the owners would not readily have exchanged them for artificial ones. Mr. Park's patient, a sailor, was able to ascend the rigging of his ship with the agility peculiar to that profession; and the woman on whom Mr. Crampton operated could walk the distance of eight or nine miles without suffering fatigue or inconvenience.

"The advantages attending excision of the knee-joint over amputation in the thigh, in addition to the satisfaction of saving the limb, and promoting the credit of surgery, seem to me, *First*, the negative one of saving the patient from the inconvenience of resting his weight upon the *face* of a stump: *Secondly*, the positive one of preserving for him the tarsus, metatarsus, and toes, which constitute an apparatus much more efficient in protecting against the effects of concussion than any artificial one that can be constructed. Influenced by these considerations, I resolved to try the operation in some of those cases of diseased knee, which so frequently result from white swelling in young subjects, and are condemned without any ceremony to amputation.

"John Arnot, æt. 8, was admitted on 1st December. His left knee was very much enlarged and immoveably bent at an acute angle with the thigh. There were two sinuses on the inner side of the joint, which allowed a probe to reach the bone. The disease resulted from a fall on the ice, and was of three years duration. His health was broken, and he seemed devoted to speedy destruction, unless something was done for his relief.

"On Monday, therefore, 7th December, I made two incisions across the forepart of the joint, extending from one condyle of the femur to the other, meeting at their extremities, and including the patella between them. The integuments thus insulated being removed, together with the patella, which was very much diseased, I exposed the extremity of the femur, and sawed it off. In doing this the periosteum was separated from the bone, to which it adhered very slightly, for about an inch or rather more, and I therefore thought it right to saw off another portion to this extent. The head of the tibia was next exposed and removed by means of cutting pliers. One of the articular arteries was tied, and we then proceeded to dress the wound; but here an unexpected difficulty occurred, owing to the hamstring muscles, which, as already stated, were much contracted, and still prevented the limb from being straightened, notwithstanding the relaxation they had suffered in consequence of the removal of the joint. I extended the limb as far as was practicable, and secured it in this position by a splint and bandage. The patient had very little constitutional disturbance, but the wound presented a dry and unpromising appearance. The tibia, from not resting in opposition to the femur, was drawn up behind that bone, distended the integuments, and threatened to exfoliate extensively. I at length succeeded by cautious extension and counter-extension, in reducing the displaced extremities of the bones, when the limb became quite straight, and the tendency to

dislocation almost entirely ceased. The cure afterwards advanced satisfactorily, notwithstanding the most vexatious opposition on the part of the patient, who was a boy of uncommon quickness, but most perverse disposition.

"Four weeks after the operation, the wound was all but healed, and the limb is now becoming every day more useful to the patient, who can already make considerable use of it in walking, though not yet provided with a high-heeled shoe.

"Ann Mackintosh, æt. 7, entered the Hospital 14th December, on account of a white swelling of the right knee, which had existed eighteen months, and was now in its last stage. There was a large sinus above the inner condyle, through which I introduced my finger into the joint, and felt it extensively diseased. Encouraged by the success of the former case, I performed a similar operation in this one on the 28th December, and think it unnecessary to mention the particulars, as they were in all respects similar to those already detailed. The articulating portions of bone removed were, as in the boy, extensively ulcerated and carious; but the soft parts were much less swelled, and less altered by the gelatinous degeneration of scrofulous action, than in him; the result, therefore, was expected to be, if possible, still more satisfactory.

"Great difficulty was experienced, from contraction of the hamstrings, in preventing dislocation of the bones, and the femur, so far as it was visible, presented a bare, and dead-like surface, but the favourable termination of the first operation, notwithstanding appearances equally disagreeable, prevented me from abandoning my sanguine expectations of success in this instance also. On the 6th of January, in order to prevent displacement of the bones, which all our efforts hitherto had been unable to effect completely, I cut away about two inches of the femur with the cutting pliers, and then observed, to my extreme concern, that the bone was denuded beyond the farthest extent to which my finger could reach. Amputation now seemed to afford the only chance; but before having recourse to it, I resolved to wait a little, in the expectation of nature pointing out at what part of the limb the operation ought to be performed. On the morning of the 8th I found her very weak; she sunk rapidly; and died at two the same day.

"I do not think that the enemies of excision of the knee-joint can found any thing upon this case, since it would appear from reasoning, and has been in great measure proved by experience, that excision of a joint is less dangerous than amputation of the limb; and the only question that can be agitated, in respect to the merits of the operation in this situation concerns the utility of the limb which is preserved."—*Ed. Med. and Surg. Journ. April*, 1830.

—

51. *Excision of the Upper Jaw.* By John Lizars, Esq.—In December, 1827, Mr. Lizars attempted to remove the superior maxillary bone for a medullary sarcomatous tumour of the antrum. He commenced by tying the common carotid artery of the affected side, but was prevented by the hæmorrhagic disposition of the gum and palate, his patient having lost in a few seconds, upwards of two pounds of blood, from completing the operation. The patient, a strong, athletic man, survived this attempt seventeen months, lingering out a most loathsome existence, and suffering great agony for weeks prior to his decease.

Mr. Lizars' second attempt was more fortunate, *at least for the surgeon.* The patient was a woman aged fifty-four, who had suffered for a few weeks with pain in the left supermaxillary bone, and discharged blood from her nostril on blowing her nose. There was considerable swelling of the cheek, and the tumour was painful on pressure. It projected into the posterior part of the left nostril, and towards the cheek, but the orbit was not at all affected. The diseased parts were removed on the 1st of August, 1829, and the tumour found to be of a medullo-sarcomatous structure, and adhering to the pterygoid process of the sphenoid bone. We do not give the mode of operating, as it was very similar to that employed in the third case, which we shall give in detail. On the 16th day, the external wounds being healed, and the patient doing well, she request-

ed to be dismissed. She however died suddenly three days afterwards—no dissection was permitted.

The third operation was performed on the 10th of January last, on a healthy woman, aged fifty-five. Eight months before this period she began to feel pain in her right temple and eye, the latter of which soon protruded in a slight degree, and immediately afterwards the cheek; a fetid discharge began to flow from the nostril of the affected side, and a tumefaction of the hard palate to appear. When she arrived in Edinburgh, there was, on the right side, a distinct bulging downwards of the hard palate, an evident protrusion of the superior maxillary bone forwards to the face, and upwards to the eye, which organ had a weeping, inflamed, and swollen appearance; there was also a small, round, firm tumour in the nostril, from which issued a sanious discharge.

Having prescribed a cathartic the day before, he operated as follows. Having placed his patient on a table, he first secured on the right side the trunk common to the temple and intermaxillary arteries, immediately below the posterior belly of the digastric muscle, slit up the right nostril close to the mesial septum, likewise the upper lip at the labial fossa, and the cheek from the angle of the mouth to the masseter muscle. He next divested the bone of its soft coverings, at the points where the saw was to be applied, by dividing the mucous membrane which invests the floor of the naris, also the gum from the naris to the palate, the palate backwards to the velum, and across to the dens sapientiæ, carefully preserving the adhesion of the velum to the palatine plate of the os palati; after which he dissected up the flap of the cheek from the superior maxillary bone towards its nasal process, and to where it forms the floor of the orbit, also outwards towards the cheek-bone, and around to its bulbous process.

The superior maxillary bone being thus divested of its soft coverings, or cleared of these where it was intended to be removed, he applied the saw at the following different places, namely, the front of the bone between the naris and mouth; the palatine plate backwards from this, parallel with the longitudinal palatine suture; to near where the transverse palatine suture exists; across the same palatine plate towards the bulbous process; upwards between the bulbous process and the pterygoid processes of the sphenoid bone, across where it joins the cheek-bone; and, lastly, at its nasal process, parallel with the inferior margins of the lachrymal and nasal bones. He then, with strong scissors, cut the connexions of the orbitary plate with the os planum of the ethmoid bone, and orbitary process of the palate bone, deep into the orbit, to the spheno-maxillary fissure; and was, lastly, able, by notching with the bone forceps at every point where the saw had been applied, to remove the entire bone, which had its cavity filled with a firm sarcomatous tumour. There were, besides this, two or three soft gelatinous polypi hanging from the mucous membrane of the ethmoid bone, which required to be removed. A little lint was then inserted in the vacuity to afford support to the flaps of the cheek, which were approximated by needles and ligatures, three needles being inserted in the integuments of the nose, two in the upper lip, and four in the cheek. The patient was now carried to bed, and had an opiate administered. The wounds of the integuments healed by the adhesive inflammation. The patient was able to walk about the room by the eighth day, and the 5th of March she left Edinburgh for her home.

This operation appears hazardous, but Mr. Lizars says that it is not so in reality—that when once the hæmorrhage is commanded by securing the internal maxillary artery, it is comparatively easily effected, and not nearly so formidable as the former operation of trephining and cauterizing the antrum. The disfiguration of the countenance, he says, also is rendered very trifling by the preservation of the cheek bone.

—

52. *Tapping in Hydrocephalus.*—Dr. Conquest is said to have performed the operation of tapping for the cure of hydrocephalus, twice with success;

and it is stated in the *London Medical Gazette*, for April last, that he exhibited one of the patients to his class, and a number of gentlemen, last spring. "This child, a girl of about two years of age, had several signs of hydrocephalus from a date soon after its birth, and for many months past the head had gradually increased, until it acquired an enormous size. The forehead was singularly broad, and the anterior fontanelle unnaturally large. The pupils were permanently dilated; the child slept almost incessantly, and frequently had two or three frightful convulsions during the day and night. Dr. Conquest operated some time since, before a large number of the pupils of the hospital, by pushing a very beautifully constructed trocar into the right lateral ventricle. He introduced it obliquely, close to the edge of the right frontal bone, about midway between the crista galli process of the ethmoid bone and the anterior fontanelle, so as to avoid the longitudinal sinus on the one hand, and the corpus striatum on the other. The instrument entered about two inches below the scalp. An ounce and a half of bloody serum, mixed with portions of cerebrum, escaped. The pulse became feeble, and temporary collapse followed. The fluid was allowed to escape stillicidium, and within eight-and-forty hours about two pints and a half flowed out of the opening. Almost immediately after the operation, the pupils became sensible to the stimulus of light; the drowsiness was succeeded by disinclination to sleep, and the pulse, which had always before been remarkably slow, became about eighty-five. Two days after the operation, the brain evidenced signs of inflammation, with high constitutional disturbance; and great alarm was excited by a rather formidable attack of convulsions. Leeches to the temples, and the constant application of cold to the head, subdued the local inflammation, and within four-and-twenty hours all became tranquil. The head was well strapped, and from the cessation of cerebral excitement no unfavourable circumstance occurred.

"When this interesting child was exhibited to the class on Saturday evening, every one was struck with the improvement of its appearance, and by the intelligence and cheerfulness of its countenance. Dr. C. stated that he considered it perfectly well, and as exhibiting a most gratifying and triumphant proof that this seemingly formidable proceeding might be safely and successfully adopted under similar circumstances.

"The other case, to which the doctor has often adverted during the winter, he operated on last autumn, assisted by Dr. Hodgkin, the talented pathologist of Guy's Hospital. Nine ounces of serum were withdrawn from the posterior fontanelle. The head became lessened *six inches* in its circumference, and no increase in its size has yet recurred."

—

53. *Amputation of the Arm at the Shoulder Joint.* By Baron Larrey.—A. Barbotin, æt. 24, a soldier in the 2d Regiment of the Infantry of the Guard, lymphatic temperament, presenting some signs of scrofula, had his left thumb amputated by M. Larrey for an ulcer with caries of the phalanges. Some time afterwards, (March 17th, 1829,) he re-entered the Hôpital Militaire de la Garde with an abscess at the elbow joint, which was opened by the cautery; this was followed by profuse suppuration, and the formation of other abscesses and sinuses; the bone became denuded, and was found to be carious to a great extent; the soft parts were wasted, and the forearm could not be moved without great pain; at the same time, constitutional symptoms arrested, fever, restlessness, loss of appetite, emaciation, &c. and the amputation of the arm was accordingly proposed to the patient, who, however, obstinately refused to submit to it; the disease thus went on, and within a short time, the soft parts of the upper arm, up to the shoulder, had become so wasted and flaccid, that there appeared hardly any chance of success from amputation; the exarticulation of the limb was therefore proposed, and the patient ultimately gave his consent to it. The operation was performed by M. Larrey, on the 26th of November, in the following manner:—The patient being placed on a chair, and held by two assistants; a longitudinal incision was made from the acromion

down to about an inch below the neck of the humerus; the deltoid muscle being thus divided into two equal parts, the skin of the arm was forcibly retracted upwards, two flaps were formed, comprising the tendon of the great pectoral and dorsal muscles, very near their insertion; an assistant now compressed and raised the flaps, so that the joint was laid bare; the tendons and capsular membrane were then divided by a circular incision, the arm dislocated outwards, and the knife having been carried between the bone and the soft parts at the posterior surface of the arm, and tendons and ligaments were divided, and the operation thus terminated. The axillary artery, and the two circumflexæ, were tied; the flaps were brought into contact, and the stump was dressed with styrax.

After about a month, the patient was considered convalescent; healthy suppuration had taken place soon after the operation; the ligatures had come away on the twelfth day, and the exfoliation of the articular cartilages was followed by the cicatrization of the wound, which, at the above period, had consequently healed in its upper half. The general state of the patient was also greatly improved, and a successful termination of the case was anticipated.—*La Clinique, January 2d*, 1830.

—

54. *Real Bronchocele.* By Baron Larrey.—Real bronchocele, M. Larrey says, consists of one or several tumours filled with air, which, during its forcible compression in the upper portion of the trachea, the larynx, or the mouth, has produced small herniæ of the mucous membrane; these tumours rapidly increase in size, so as not unfrequently to exert a violent pressure on the vessels of the neck. They are situated in front, or at the sides of the larynx, between the hyoid bone and the thyroid cartilage, or between the cricoid cartilage and the first tracheal ring, and are invariably produced by violent exertion. The most characteristic symptom of this kind of bronchocele consists in the disappearance of the tumour under compression. In Egypt we frequently observed this kind of bronchocele in the blind, who are very numerous there, and who are employed by the priests to chaunt at the top of the minarets. It generally happens, that after two or three years, such persons became totally unfit for this office, on account of the occurrence and subsequent increase of these tumours. Since M. L.'s return from Egypt, he has had the opportunity of observing two cases of bronchocele in two subaltern officers, who had for a considerable time been employed as military instructors. One of them had near the larynx two tumours, which were free from pain, and crepitus on pressure. They were of equal size and globular form, and the skin by which they were covered was rather tense, but without any morbid alteration. Both individuals had almost entirely lost their voice, being enable to make themselves understood by words, except whilst forcibly compressing the tumours. They were also obliged to breathe with their mouths wide open. In consequence of the continued pressure on the vessels of the neck, the jugular veins had become enlarged, and they suffered greatly from congestion within the head. The application of bladders filled with ice, and of graduated compresses with camphorated spirit and liq. ammon. acetat. greatly reduced the size of the tumours, but did not prevent their reappearance on the least exertion.—*Clinique Chirurgicale.*

—

55. *Extirpation of a Scirrhous Tumour.* By Baron Larrey.—A man aged forty, of a robust constitution, but of scrofulous habit, had on the left side of the neck a lobulated tumour, which extended from the mastoid process along the jaw to the larynx; it was of ten years' growth, and had of late attained to such a size, as to form a large prominence in front of the lower jaw. It was almost immoveable, and free from pain; the skin by which it was covered did not exhibit any morbid alteration. He had been treated by various methods, but without benefit. Some practitioners had advised the extirpation of the tumour, whilst others considered this impracticable. M. Larrey, though fully

aware of its difficulty and danger, perceived, however, no other means of delaying the fatal termination of the case, and finding the patient resolved to undergo the operation, it was performed in the following manner:—An incision was made parallel to the horizontal branch of the lower jaw; and three others which met the first at right angles, one along the anterior margin of the sterno-mastoid muscle, another across the centre of the tumour, and a third over the larynx; the flaps were carefully detached from the scirrhous mass, and the tumour dissected from the surrounding parts; some of its roots were very deep-seated, so that it was necessary first to remove three-quarters of the tumour, in order to have access to them; one of the roots was so near the large blood-vessels, as to require to be tied before it could be removed; another lobe was fixed between the transverse processes of the second and third cervical vertebræ; another, of oval form, was adherent to the cellular sheath of the common carotid, which was thus, on its removal, completely laid bare; a third pedicle was attached to the left side of the larynx, and seated between the genio-glossus muscle and hyoid bone, and a fourth reached upwards into the mouth. More than fifteen vessels were tied, among which were the external maxillary, the submental, occipital, superior thyroid, and sublingual arteries; several branches of the fascial, par vagus, and sub-lingual, and the accessary nerve, at its passage through the sterno-mastoid muscle, were divided. The wound was closed by about twenty sutures. The operation lasted fifty minutes, and was borne by the patient with great firmness; immediately after it he was seized with syncope, which was soon followed by a tranquil sleep. No untoward symptom was observed during the first three days after the operation, except a slight febrile excitement on the third. On the fourth, the dressings were removed for the first time; the wounds had almost completely united, and there was not much suppuration in the situation of the ligatures. On the ninth and tenth days the ligatures came away, and on the 31st day after the operation, the patient was perfectly cured. The tumour was found to consist of fibro-cellular texture; the external portion of each lobe was formed by very dense cellular tissue, of which concentric layers were sent towards the centre of each lobe, like the cells of an orange; the cellular tissue contained between these cells was of grayish-white colour, rather dense and elastic.—*Ibid.*

—

56. *Tracheotomy.* By Baron Dupuytren.—A girl aged about eight years, having swallowed a bean, was immediately afterwards seized with violent cough and dyspnœa approaching to suffocation; an emetic was administered, which produced vomiting, but no relief, nor the discharge of the foreign body, which was, therefore, suspected to have entered the trachea. The patient passed a very restless night, almost in a continued fit of imminent suffocation, but it was not till the 13th of February, two days after the accident, that she was brought to the Hôtel Dieu. M. Dupuytren having been informed of the accident, without any delay proceeded to perform tracheotomy. A vertical incision, about an inch in length, was made in the middle of the neck, a little above the upper margin of the sternum; the skin and sub-cutaneous tissue were divided, the muscles pushed aside, the trachea laid bare, and two or three rings of it divided; the aperture was kept open by means of a pincette, and after some violent expiratory efforts, the bean was thrown up through the wound. No ligature had been required during the operation. It is stated that the screams of the little patient, during the operation, were not suppressed, by the artificial opening in the trachea. Towards the evening violent symptoms of bronchitis came on, so as to require venesection to about a pint; the night was rather restless. On the following day, the patient had still fits of suffocation; respiration was performed almost entirely through the wound. On the evening, eight leeches were applied to the neck, with apparent benefit. On the 1st, the little patient was much better, and was considered out of danger.

M. Dupuytren observed, that about fifteen years ago he performed tracheo-

tomy in a similar case, but the bean was neither thrown up, nor could it be extracted during the operation, and it was not before the third day after it, that it was discharged through the wound.—*Lancette Française.*

57. *Case in which a Foreign Body remained ten years in the Bronchia before causing death.*—As an instance how long foreign bodies sometimes remain in the bronchia before causing death, M. Dupuytren related the following case:—one of his friends, a robust young man, whilst playing with some children, amused them by throwing up a ten-sous piece, and catching it in his mouth; at last, during the moment of inspiration, the coin fell into the trachea. Violent painful cough, accompanied by a peculiar noise, immediately ensued, especially when the foreign body was, during expiration, thrown up towards the glottis; when it was not moved, as it sometimes happened, for several hours, respiration was but slightly affected. The patient being continually in hopes that the foreign body would be thrown up through the glottis, decidedly objected to an operation, and in this state continued for five years, during which time he was much inconvenienced by cough, suffocation, &c. After that period, however, the foreign body appeared to become fixed, and for some time the patient felt almost quite well. Symptoms of phthisis however gradually succeeded, and terminated his life ten years after the accident; the piece of money was found in a tuberculous excavation.—*Ibid.*

58. *Case of Polypus Tumour obstructing the Glottis and causing death.*—This is related by M. Dupuytren. An old man, who had been admitted at the Hôtel Dieu, on account of disease of the urinary organs, was, from time to time, affected with suffocation. During the intermissions his breathing was perfectly easy, and there appeared to exist no assignable cause for the fits, during one of which, however, he suddenly died. On examination, the glottis was found to be completely obstructed by a small polypus tumour, which originated from one of the arythenoideo-epiglottean ligaments; it was of cellulo-vascular texture, one inch and a half in length, bilobular at its extremity, and covered with mucous membrane. It appears that this tumour had generally been hanging into the pharynx, and then had not caused any uneasiness; but that whenever any change was produced in its position, it obstructed the glottis, and thus ultimately produced suffocation.—*Ibid.*

59. *Case of Recovery from a Wound in the Stomach, inflicted by a Pistol Ball.* By P. Breton, Esq.—A trooper, in a fit of despondency, formed the resolution, on the 30th of April, 1819, to commit suicide. In the evening, about dusk, he took his holster pistol, and three ball cartridges, and proceeded from the fort of Sembhelpur to the bed of the Mahánadi River, where he intended to effect his purpose. His woman, seeing him in a disturbed state of mind, followed him at a short distance. Observing him load his pistol, and directing it towards himself, she ran and seized his arm, and endeavoured to force the pistol from his hand. In the struggle, the pistol was fired, and the ball passed through the body of the woman, and killed her on the spot. The trooper again loaded, and shot himself in the pit of the stomach, the ball lodging in the left side of the lumbar vertebræ.

Having failed in his attempt to destroy himself, and the third ball cartridge with which he had provided himself being lost when he fell on the ground by the shock from the ball, he returned, without any assistance, to the fort, and communicated every thing that had happened.

"On examining his wound, I found that the ball had entered the epigastric region, and was perceptible to the feel in the left side of the loins. I immediately extracted it, and closed the incision with adhesive plaster. Conceiving that the stomach was penetrated by the ball, I considered the case a hopeless one, and reported the wound to be mortal. The following morning, the man had recovered his senses, so as to give a distinct and rational account of all the cir-

cumstances which led to the commission of the rash act; and the wound manifested such appearances, as left no doubt in my mind of the stomach being perforated.

"My attention was therefore directed to uniting the anterior wound with all possible speed, and to prevent the introduction into the stomach of any more food than was absolutely necessary to support life. To my astonishment, the wound quickly united, and the serous discharge from the stomach gradually ceased. When union had taken place in the anterior wound, I was informed by the native doctor, that when food was taken into the stomach, particles now and then escaped from the wound in the loins, where the ball lodged. To convince myself of the truth of this assertion, I gave the trooper a draught of water to drink; and almost immediately afterwards, I distinctly saw a small quantity of it trickle through the wound. I repeated this two or three times, and was satisfied that there was a communication between the stomach and the wound in the loins. Superficial dressings were continued, and rigid abstinence enjoined. In the course of about a month and a half, the wounds healed, and the man recovered."

It is remarkable, that in this case of perforation of the stomach by a pistol ball, very little pain and uneasiness were expressed by the patient, and symptoms of irritation were not at any period manifested. Neither was thirst complained of, nor were the natural functions of the body in any considerable degree disturbed.—*Transactions of the Med. and Phys. Society of Calcutta. Vol. I.*

—

60. *Inveterate Herpes cured by Extirpation.*—Dr. Eberl relates in the 25th Vol. of *Rust's Magazin*, the case of a man who had been afflicted for five years with herpes, which had resisted all remedies. The disease was situated on the neck, and the part affected was thickened, lardaceous, and callous. The patient was in good health; and as no internal affection could be suspected, Dr. E. determined to extirpate the part, which he did, and the patient was radically cured by the operation.

—

61. *Disease of the Maxillary Sinus.* By John Couper, M. D. Senior Surgeon to the Glasgow Royal Infirmary.—Inflammation of the lining membrane of the maxillary sinus, instead of ending in suppuration, sometimes terminates in a copious deposition of thick mucous matter, filling up the whole of the cavity. The speedy removal of this substance is essential to prevent ulceration of the mucous membrane, caries of the bony walls of the antrum, or the production of fungous.

Donald M'Queen, aged seventy, was admitted November 13th, 1828. The right nostril is occupied by a fungous tumour, completely filling its cavity, and pushing the septum narium towards the left side. The fungus resembles in appearance the common soft polypus of the nose, and bleeds when touched. The right cheek appears somewhat fuller than the left, and is slightly tender to pressure. The right side of the roof of the mouth, also, is softer and more prominent than the left. The gums are spongy, most of the teeth are loose, and a little purulent discharge oozes from their sockets. The right eye protrudes about half an inch more than its fellow, producing slight eversion of the lower eyelid, and chemosis of the conjunctiva. The right lachrymal sac is much distended, and the tears flow constantly over the right cheek. The right pupil is larger and more sluggish than the left; the vision of the right eye is slightly impaired, as well as the hearing of the right ear. He suffers occasionally severe pain, commencing around the orbit, and extending over the whole of the right side of the scalp, occurring most frequently at night, and accompanied with throbbing of the temples. These attacks are generally followed by bleeding at the nose, which affords relief. General health good.

Twelve months ago, he received a blow above the right ear with a stick; was stunned, suffered slight hæmorrhage from the nose, and from that time became subject to head-ache. Three months after this, he felt slight obstruction in the

right nostril, followed by occasional epistaxis. Six months ago the vision of the right eye began to fail, but the eyeball did not sensibly protrude till three months after, since which the symptoms have much increased.

The third and fourth molares on the diseased side being extracted, a perforation was made through their sockets into the antrum. Only a little blood issued; on introducing a probe no firm tumour was perceptible in the antrum, but the cavity was found to be filled with a soft pulpy substance, through which the probe could be passed freely in all directions, coming into contact with a small extent of bare bone in the direction of the orbit. On injecting tepid water through the perforation, it issued freely by the nostril, bringing away, besides blood, a quantity of a white substance, of the consistence of butter. The polypus being removed from the nostril with the forceps, tepid water was repeatedly injected through the perforation, until it issued unmixed from the nostril, and the quantity of inspissated mucus thus extracted, was greater than would have completely filled the antrum in its natural state. The injection with tepid water was afterwards continued daily, and occasional anodynes were given to alleviate the pain in the head. At the end of two weeks, the swelling of the cheek and palate, the protrusion of the eyeball, the epiphora and ectropion, had disappeared; the vision of the right eye was completely restored, but he still heard imperfectly with the right ear, and suffered occasional attacks of pain in the right side of the head. At the end of two months, he left the hospital in perfect health, excepting occasional slight head-ache. There was then no discharge from the antrum, although the perforation had been carefully kept open, and no bare bone could be perceived with the probe.—*Glasgow Medical Journal, August*, 1829.

—

62. *Laceration of the Kidney.* By John Cooper, M. D.—Although the extent of the fatty matter in which the kidney is imbedded, as well as the strength of the bones and muscular substance by which it is protected posteriorly, might be supposed to place it altogether beyond the reach of injury from without, yet experience has often shown that this is by no means the case. In the following case, the left kidney was extensively lacerated by external violence.

William Baird, aged twenty-eight, was brought to the hospital at four o'clock, A. M., December 8th, 1828, by persons, who said, that two hours before, while assisting in drawing a fire-engine, he had fallen, and the wheels had passed over his body. He is intoxicated. On the right buttock the skin is abraded to the extent of about a hand's breadth, and a little to the right side of the lumbar spine another patch of skin, as large as a crown piece, is similarly injured. Slight crepitus is felt over the lower ribs of the right side, and a crackling sensation over the left false ribs, as if from effused fluid. He complains of acute pain in the lumbar and inferior half of the dorsal spine, excited by pressure or motion of the trunk, but no irregularity of the spinal bones can be detected. He has slight tenderness and fulness of the lower part of the abdomen; the sensation and motion of the lower limbs are unimpaired; slight priapism; skin cold; pulse 80, and feeble.

The catheter was passed, and two pounds of bloody urine were drawn off. The trunk was supported by a bandage. Heat was applied externally, and warm drinks were given. In the course of the day, his strength improved. His bowels were opened by medicine. His urine, although still bloody, was passed without the catheter; but in the evening the abdomen became more distended, and hiccup came on. On the following day he continued to sink, and died forty-eight hours after admission.

On inspection, about a pound of dark-coloured fluid blood was found in the cavity of the abdomen. The peritoneum appeared of a dark purple colour from the extravasation of blood into the cellular substance beneath it. Both kidneys were imbedded in coagulated blood. The right one was uninjured, but the left was lacerated in several places; the largest laceration being about an inch and a half in length, and extending about half an inch into the substance

of the kidney. The pelvis of the left kidney was filled with coagulated blood. The ninth rib on the left side was fractured, as well as the right transverse processes of the first, second, and third lumbar vertebræ.

It is worth remarking that the injured kidney and the fractured transverse processes were on opposite sides.—*Ibid.*

MIDWIFERY.

63. *Cæsarean Operation on a Patient dead from Hæmoptysis.*—The subject of this case was a woman aged twenty-eight, who entered the Hospital of St. Louis, June 2d, 1829, in the seventh month of pregnancy with the usual symptoms of phthisis pulmonalis. On the evening of the 17th of July, she was seized suddenly with a frightful hæmoptysis, and expired in the space of four minutes.

When the resident physician, M. Hugueir arrived, life was quite extinct, and he instantly determined to lay open the uterus, and save the child if possible. This was accordingly executed five minutes after her death; the feet of the child were sought for with the right hand and quickly found, when both hands were withdrawn and employed to extract the infant, which gave scarcely any signs of life. It was pale, exsanguineous, motionless, and the pulsations of the heart were scarcely perceptible. The cord was tied before it was cut, frictions with warm cloths on the præcordia were had recourse to, artificial respiration set up, and the child placed in the warm bath. Under the employment of these measures, the heart began to beat more vigorously, the nisus of respiration was induced, and the infant uttered a feeble cry. The animal heat could only be retained by keeping the little creature in warm cloths, but at the age of ten days, when the report closes, it enjoyed good health.—*Revue Méd. Jan.* 1830.

We learn from the *Journal Heb. No.* 59, that this infant continued alive at the age of thirty days.

---

64. *Detachment of the Placenta by the Injection of Acidulated Water into the Umbilical Cord.*—In our preceding volumes, several cases were related, in which the injection of acidulated water was successful in promoting the separation of the placenta; and this measure has since been resorted to in one instance with the best effects by Dr. Chiesa, of Milan. A lady, aged twenty-eight, who had at her previous labours, and menstrual periods, lost great quantities of blood, became pregnant for the fourth time. She was delivered at full time, after a labour of ten hours. Ten minutes after the infant was expelled, symptoms of a profuse loss of blood made their appearance; attempts were made to separate and deliver the placenta, but without effect. The patient was sinking; the blood continued to flow profusely, notwithstanding the use of refrigerant applications and stimulating frictions. Dr. Chiesa therefore determined to try the injection of the cord; he accordingly expressed from the cord all its blood, and injected it with acidulated water; after keeping in the fluid two minutes, he pressed it out, and then injected a fresh portion; almost immediately after which, uterine contractions came on, and the placenta was expelled, and the hæmorrhage arrested.—*Annali Univer. di Med. July*, 1829.

---

65. *Retroflection of the Uterus.*—We find in the *Edinburgh Medical and Surgical Journal* for April last, a case of partial retroversion or retroflection of the uterus, related by J. M. Baynham, Esq. Dr. Denman speaks of this accident as one which happens only after parturition, from bearing down of the woman before the uterus has been shortened by contraction. The patient, a woman aged forty, entered the Birmingham Dispensary in 1822, three days before her death. Although the mother of several children, she was not conscious of pregnancy. Retention of urine occurred ten days previously, during which time an

apothecary had charge of the case. He once succeeded, after causing much pain, in obtaining a large quantity of bloody urine, but could never pass the catheter afterwards. When recommended to the dispensary, she was visited by Dr. Lee, who requested the opinion of a surgeon. From the circumstance of the woman, whose experience was allowed to have some weight, asserting that she was not pregnant, the diagnosis of the case was obscured. Her belly was generally distended, but not so much so as to prevent the detection of a tumour between the umbilicus and the pubis, inclining rather to the right side. The vaginal passage was so limited by the presence of a tumour in the pelvis, that the introduction of the finger was difficult, even after the bladder had been emptied. The surgeon succeeded once only in introducing the catheter, notwithstanding many attempts were made to carry it into the bladder, and yet the instrument always passed freely, though no discharge of urine followed. Every unsuccessful operation was attended by great pain, and generally by a free discharge of blood. The case was suspected to be one of malposition of the uterus, but all endeavours to relieve the patient proved fruitless, and after much suffering, she died in a state of exhaustion upon the thirteenth day of her illness.

Dissection.—The belly was large and tense, and the presence of a somewhat defined tumour still manifest. Before the body was opened, a long catheter was many times introduced, and this with extreme facility, but not in any instance with the purposed effect. The intestines were found pushed up, and the inferior portion of the abdomen occupied by a double tumour unequally divided upon its surface by a tense cord of peritoneum. This division proved to be the natural distinction of the bladder and the uterus. The peritoneum did not exhibit any appearances of inflammation, and the whole of the abdominal viscera were healthy. The boundaries of the uterus could not be traced in this stage of the examination, for the tumour so completely filled the pelvis as to prevent the passage of the hand posteriorly. Fluctuation was evident in both portions of the tumour; but whether caused by a fluid common to both, or held separately in each, did not at first appear. An elastic catheter introduced *per urethram* was discovered in the posterior swelling, the fluid contents of which did not, however, escape. After numerous trials, the instrument at length, it may be said by accident, entered the bladder, and gave exit to more than three pints of urine deeply stained with blood. The anterior swelling immediately subsided, and the uterine tumour became more exposed. The mucous surface of the bladder showed the appearance of high inflammation. The instrument having been withdrawn, was again introduced, but in place of entering the bladder as before, it passed into the uterus, which was now carefully opened, and the catheter found betwixt the membranes and the parietes of the latter organ. Nearly two pints of *liquor amnii* escaped upon a division of the membranes, and a five months' fœtus was in part exposed. The head and chest and upper extremities of the child were still *very tightly* retained in the pelvis. The *os uteri* was placed immediately under the arch of the pubis bearing upon the urethra; the *cervix uteri* much curved, and a considerable part of the organ situated above the brim of the pelvis, its fundus rested in the hollow of the sacrum, thus constituting a case of incomplete retroversion. The catheter had been forced out of the urethra, where it formed an angle, then passing forward in a direct line, entered the mouth of the womb. Effusion of blood in the cellular substance rendered a minute examination of this part difficult, if not impossible, but no opening could be detected in the parietes of the uterus.

It is singular, that in the numerous journies of the instrument along this artificial passage, the membranes of the ovum should always have escaped unhurt. Had they been ruptured, the case might have terminated favourably. Death unquestionably resulted from laceration of the urinary canal, in consequence of which the bladder could never afterwards be properly relieved. This at the time appeared to me a case in which perforation of the uterus might have been practised with advantage.

MEDICAL JURISPRUDENCE.

66. *Case of Poisoning with Arsenic.*—The following case, related by ROBERT CHRISTISON, M. D. in the *Edinburgh Medical and Surgical Journal*, for January last, is interesting, not only on account of the neatness of the analysis, by which an almost incredibly small portion of arsenic was detected, but also as showing that the large doses of this remedy sometimes ordered for medicinal purposes, are not without danger. Six persons at a baronet's in Roxburgshire, were taken severely ill during dinner, or very soon after it. Most of them rose from the table before the cloth was removed; but two of them were not seized till about an hour after the rest. The symptoms were in all sickness, vomiting, and severe pain in the bowels; and in no long time one of them had also diarrhœa. The vomiting continued violent till early next morning, and warm water was taken freely to encourage it. In the course of the night all were affected with a sense of heat in the stomach, throat, and mouth, and in the morning the lips became encrusted, and the skin cracked and peeled off. For three or four days the whole party had a disinclination to eat.

The simultaneous occurrence of these symptoms, during a meal in so many persons, left hardly a doubt that some poisonous substance had been mixed with one or more of the articles taken at dinner. In order to ascertain what the poison was, and in what vehicle it had been taken, various articles were sent to Mr. Christison for analysis. Among others, was two quarts of the vomited matter. A small portion of this when filtered, gave no indication of arsenic, mercury, copper, antimony, lead, or zinc; on being treated with sulphuretted hydrogen. But when the whole filtered fluid was evaporated to the volume of two ounces, sulphuretted hydrogen produced a dirty-yellowish cloudiness, which, after ebullition and subsequent rest for twelve hours, gave place to a scanty, Naples yellow, flaky precipitate. This precipitate was separated and washed by the process of subsidence and affusion repeatedly performed, and was then dried in a watch glass. The product, which was very small in quantity, and of course contained a large proportion of animal matter, was then subjected to the process of reduction in one of the small tubes recommended by Berzelius. By slow and cautious management of the heat, a scanty sublimate was procured forming a dark, filmy cloud, on a small part of the narrowest portion of the tube. This sublimate was entirely destitute of brilliancy on the outside, or of crystalline appearance on the interior, and consequently without the subsequent test of oxidation, suggested lately by Dr. Turner, no conclusion whatever could be drawn from it. But on removing the portion of the tube containing the flux, and then subjecting the film to repeated sublimation, a ring of fine sparkling white crystals was formed, on some of which I could observe with a common magnifier triangular facettes. I could hardly doubt, therefore, that I had procured a minute quantity of oxide of arsenic. But as the quantity was so small, that, being in the custom of weighing somewhat larger quantities, I was sure it did not amount to nearly a 250th part of a grain, I resolved to subject it to a further test. With this view two drops of water were introduced into a tube, and boiled on the crystals. These were soon dissolved, and in the solution the ammoniacal nitrate of silver caused as characteristic a lemon-yellow precipitate as it could produce in any arsenical solution.

The small quantity of arsenic thus detected, led Dr. C. to hesitate in pronouncing that arsenic had originally existed in the subject of analysis, as a quantity too small to be detected by the sharpest eye, scattered on the vessels employed for analysis, might have been sufficient to make up the quantity procured. These doubts were, however, subsequently dissipated by the detection of the arsenic in the remains of a bottle of Champaigne, of which all the party had partaken. This wine was *free from any taste*, except that of vinous sweetness; sulphuretted hydrogen caused however a copious yellow precipitate, the arsenical nature of which was proved by the process of reduction. Two ounces

of the wine gave one grain and a quarter of sulphuret of arsenic, corresponding to one grain of oxide of arsenic.

"On subsequent inquiry, it appeared that the bottle of Champagne was brought from the cellar before dinner by the baronet himself, who undid the wire during dinner, immediately before the wine was used. This circumstance at once showed that the wine had been poisoned before the bottle was corked by the wine merchant. Each of the six individuals took a single glass of it, or about two ounces, and consequently each took a grain of arsenic. It has been generally said in systematic works that a grain may prove dangerous. But I am not aware that any direct and positive fact has hitherto been published in support of this statement. The severe effects experienced by all the individuals in the present instance, notwithstanding that the poison was not taken till the stomach contained a considerable quantity of food, proves that on an empty stomach a single grain of arsenic might cause very alarming symptoms, if not even death itself. Four of the party were taken ill about ten minutes after drinking the wine, which is a sufficient answer to those who imagine that arsenic never begins to act in less than half an hour. None of the party perceived any unusual taste in the wine. This is a new and quite impartial testimony on the important question of the taste of arsenic, concerning which so many vague and erroneous statements have been published by authors and sworn to by witnesses. In conjunction with other late instances of the same purport, it establishes the fact, that arsenic may very readily be swallowed in considerable quantity in articles of food without its presence being suspected. Other articles of which the company had partaken at dinner were examined, but no arsenic detected in them.

—

67. *Case of Poisoning by Arsenic.*—In the *Edinburgh Medical and Surgical Journal* for January last, we find an interesting case of poisoning by arsenic related by Hugh Wood, M. D. of Dumfries. The subject was a boy aged seventeen, who took three drachms of the poison; two hours afterwards he was seen by Dr. Wood, who found him disposed to sleep; eyes suffused and languid; pulse 90, soft, and *rather feeble;* tongue furred. He had slight nausea, but complained of "*no pain* except slight tenderness in the region of the stomach when *firmly pressed;*" "*slight pressure produced no uneasiness.*" Vomiting soon supervened; and he drank and vomited very freely; (upwards of five gallons of fluid.) He was very judiciously treated by leeches to the epigastrium, and afterwards a blister; mucilaginous drink; castor oil; and warmth to the extremities. He however gradually sunk, and died forty-one hours after taking the poison. On examination, the inner coat of the stomach was found "generally more vascular than natural, especially along the larger curvature and about the pylorus, where there were several thick corrugated patches of a deep livid colour. There were also several spots, each about a line, or a line and a half, in diameter, of a brownish-yellow colour, as if the particles of some substance were engrained in the villous coat." This colour had become a bright sulphur-yellow when the stomach was examined by Dr. Christison, five days after death, and was, he says, manifestly sulphuret of arsenic formed by the action of the oxide with sulphuretted hydrogen disengaged after death. This remarkable appearance, though rarely mentioned, has been four times met with by Dr. C. and is probably common. The pylorus was much thickened, and very vascular.

It is worthy of remark in this case that so much arsenic should remain in the stomach after free vomiting; a circumstance, however, there is reason to believe, not unusual. What is most interesting, however, is the absence of pain. It was unquestionably a case of gastric inflammation, excited by the ingestion of a corrosive poison, terminating fatally, and exhibiting after death the marks of inflammation in the stomach—*yet no pain was at any time complained of* except when the epigastrium was *firmly pressed*, and then the pain was but slight. Will the ontologists still deny that gastric inflammation may exist without pain in the stomach being present?

CHEMISTRY.

68. *On the Influence of Electricity on Animal Putrefaction.* By CHARLES MATTEUCCI.—Animal substances withdrawn from the influence of life, quickly undergo a change, and exhale fetid gas previous to their destruction. Air, water, and heat, are the external causes which give rise to this new order of compositions. Water contributes to it by softening the fibres and by uniting itself to the products of putrefaction: heat, when it is moderate, separates them, and by destroying their cohesion, disposes them for new combinations: air exercises the most marked influence by yielding a part of its oxygen to the carbon, the hydrogen and the azote of the animal substances; hence comes the carbonic acid, water, carbonate of ammonia, and the acetic acid, which are the principal products of animal fermentation. The animal fibre then suffers this change, principally on account of the oxygen of the atmosphere which combines with it; and consequently, by taking away the action of the oxygen, we may, in this respect, prevent putrefaction. Nothing, however, is more easy than to change the affinities of bodies, and, for this purpose, it is sufficient to change their electric state. Setting out, from these principles, Sir H. Davy made his fine and useful discovery for preventing the oxidation of copper which sheaths the hulls of vessels. By thus considering oxygen as a body eminently electro-negative, we may prevent its combination with the animal fibre by establishing in them an analogous electric state, that is, a state of negative electricity.

Persuaded from some experiments of M. Bellingeri of Turin, and others not yet published which I have myself made, that animal substances, when they are put in contact with metals, establish themselves in an electric state, I determined to place some pieces of muscle upon plates of zinc, others on plates of copper, and I left others by themselves. In the course of a day I perceived that putrefaction had already begun in the pieces of muscle which were left to themselves, while no alteration showed itself in those which were in contact with metals. I afterwards perceived that the products of the change which had afterwards taken place on these last were different, but were always related to the electric state which they had assumed, that is, with their affinity. I observed, for example, ammoniacal products, and those of carbonated hydrogen in the muscles which were in contact with the zinc; and much acid and acetate of copper in those which were in contact with the copper. These results prove sufficiently that muscle, put in contact with zinc, having become electro-negative, and being no longer able to unite with the oxygen, have been slow in decomposing; but have at last yielded to the affinity, though weak, of the hydrogen and the azote, while, on the contrary, the muscular fibre, placed on copper, were combined entirely into acid products. We may then, in this manner, retard putrefaction, that is, by eluding the action of one of the two elements of the atmosphere. I have thus obtained similar and perhaps more marked results by determining an electric state in the animal fibre, not by electro-motive action, but by placing them as conductors at the poles of a pile.

By setting out with these considerations, it appears to us that we may, with more certainty, explain the antiseptic property of some bodies, an explanation, however, which is not the same for all. There are some, for example, which act by taking away water, others by forming true imputrescible combinations; others, in my opinion, by determining a particular electric state. Of this kind is the property of vegetable charcoal. It is a settled fact in practical surgery, (as has been shown by Dr. Palman in a pamphlet lately published in Paris,) that if we put vegetable charcoal on purulent sores and on putrid sores, it is not long in depriving them of their bad smell, and preventing the ulterior development of fetid matter.

Effects like these cannot depend solely on the action of porosity, for they would cease by continued contact; and we may explain them better by regard-

ing the action of charcoal as electrical, in consequence of which, by establishing in purulent sores, and in putrid flesh, electrical states, they lose those affinities in virtue of which they separate the purulent matters, or destroy them by a rapid putrefaction.—*Annales de Chimie.*

—

69. *Analysis of Copaiba.*—M. Gerber, of Hamburg, has analysed the pale yellow copaiba, and obtained the following results:—Volatile oil, 41; a brown resin insoluble in cold petroleum, 2.18; a brittle yellow resin soluble in cold petroleum, 51.38; water, 5.44.

When the copaiba becomes old, it undergoes some changes according to M. G.; a part of its volatile oil appears to be transformed into a brown resin; thus, the analysis of old copaiba furnished him with the following results:—Volatile oil, 31.7; soft brown resin, 11.15; brittle yellow resin, 53.68; water, and loss, 4.10.—*Archives des Apotheker. Tom. XXX.*

—

70. *Purity of Balsam Copaiba.*—The best test of this, according to M. Gerber, is the caustic ammonia, which furnishes at once a clear solution, whilst the solution with potash does not become clear until after some time. The addition of a very small quantity of fatty oil renders the ammoniacal solution immediately cloudy and thicker.—*Ibid.*

MISCELLANEOUS.

71. *Obstetrical Statistics of the Kingdom of Würtemberg.*—The most extensive and interesting document we have hitherto seen in the department of obstetrical statistics, is the account published not long ago of the chief particulars attending the births in the kingdom of Würtemberg, for four years previous to July, 1825, and drawn up by Dr. Riecke, from the lists returned by the various accoucheurs and midwives of that country. The report comprehends the extraordinary number of 219,355 deliveries, and 221,983 births.

In November, 1823, about the middle of the period, the population of Würtemberg was 1,447,108, so that the average number of births was one annually in every 25.4 inhabitants. Of the births, 51.5 per cent. were boys, and 48.5 per cent. were girls.

The births are thus distributed through the months of the year. In every thousand, 90.5 are in January, 85 in May, 85.5 in September, 83.33 in February, 74 in June, 86.5 in October, 87.17 in March, 78.33 in July, 86.17 in November, 79 in April, 78.5 in August, and 86 in December. Of the births, one in twenty were still-born, or died within twenty-four hours. In the circle of the Danube, the proportion was one in twenty-three; in that of the Jaxt one in twenty-two; in that of Black Forest, one in twenty-one; and in that of the Neckar, one in nineteen. Of the still-births, the proportion differed much in the different months; for of 1000, 93.5 were in January; 88 in December; 87 in October and in July; 85.5 in November; 85 in April; 84.5 in March; 78 in June; 77.5 in September; 77 in May, and 76 in February. In proportion to the births of each month, however, the numbers stand somewhat differently; so that July exhibits most still-births; April comes next, and the last in order are September, May, and March. The proportion of legitimate to illegitimate births is eight to one. In the latter, the male births do not predominate so much over the female births, and still-births are more frequent.

The number of children are, on an average, seven for every mother, more numerous in the circle of the Danube, and less in the circles of the Danube and Black Forest. Of mothers who have above fourteen children, the average is one in 129; in the circle of the Danube it is one in 66; in that of the Black Forest, one in 144; in that of the Jaxt, one in 197; and in that of the Neckar, one

in 228. Still-births and miscarriages are most frequent in those who have an unusual number of children.

The average deaths in childbed are one in 173; but the proportion differed considerably in the different circles of the kingdom. In the circle of the Danube it was one in 135; in that of the Neckar, one in 172; in that of the Jaxt, one in 199, and in that of the Black Forest, one in 210. The most frequent causes of death were hæmorrhage, miliary, and puerperal fever, hysteritis, metastasis of the milk, and general exhaustion; and a tenth of the deaths were owing to causes unconnected with the puerperal state. The deaths differ much in different months. Of 1000, 45.5 take place in August; 56 in June; 62 in July; 79 in October; 85 in March, 89 in April and November; 91 in September; 98.5 in February; 98.5 in January and May, and 108 in December.

The mortality among women in their first pregnancy is one in 143. Of these, a fifth part are older than thirty; and among such, the mortality is one in fifty. The mortality among women who have twins, is one in fifty-seven or fifty-eight.

Miscarriages and premature deliveries amount to one in forty-one of the total deliveries. Of the premature births, 54.5 are still-born, or die within twenty-four hours; and one-third of the total still-births are premature. Of the total births, one-seventh are cases of primogeniture. In one delivery out of eighty-six, there are more children than one, or in 1163 cases out of 100,000; and of these 1163, twins occur in 1146.9 cases, triplets in 15.2, and four children in 0.9. Of twins and triplets, one-third died at birth. Of the children born four at a birth, every one died soon after.

The labour was natural in 97.5 per cent. of the cases. In the cases of natural labour, the deaths in childbed were only one in 346. In the circle of the Black Forest they were only one in 500; in that of the Jaxt, one in 419; in that of the Neckar, one in 307; and that of the Danube, one in 265. The still-births in natural labour, were one in 31 over the whole kingdom, but in the circle of the Black Forest, one in 26.5; in that of the Neckar, one in 28; in that of the Jaxt, one in 27.5; and in that of the Danube, one in 32.5.—The number of labours in which assistance was required, was 7949 or 3.6 per cent. Such cases were most numerous in the circle of the Danube, and most rare in that of the Black Forest. In the cases in which assistance was required to finish the labour, one in 12.5 of the patients died—but in the Black Forest, one in 11.5, and in the circle of the Danube, one in 14.5 only. In such cases, one in 2.66 of the children died at birth—only one in 3.66 in the circle of the Danube, and one in 2.5 in the circle of the Neckar. In cases where assistance was required, the child was a male in seven out of twelve; and in proportion to the number of each sex born in that manner, eight males died at birth for five females. It often happened that every male child of the same parent was still-born, while every female child survived. The greatest number of cases delivered artificially, occurred in December, March, and February; the smallest number in August and October; February was to October as 13 to 9.4. In 1000 artificial deliveries, the forceps was used in 344 cases, turning and extraction by the feet was practised in 394; turning and extraction by the head, in 2; extraction by the breech or feet in 63; the placenta was detached in 188; labour was brought on by force in 1; embryotomy was performed in 10.75; perforation of the cranium in 1.4; paracentesis of the cranium or abdomen for dropsy in 1.22; gastrotomy in 0.12, Cæsarean section in 0.25 during life, and as often after death; premature delivery in 0.25; and other artificial help was given in 32 cases.

From a comparison of the preceding facts with the state of obstetric practice in the four circles, it follows that artificial labour is most frequent, and the general mortality among mothers greatest where accoucheurs are most abundant; but that the mortality is least among cases where assistance is required to complete the labour, and that the number of still-births is also least, especially in artificial labours.—*Riecke's Beiträge zur geburtshülflichen Topographie von Würtemberg*, 1827.

72. *Statistics of the Netherlands.*—The influence of local circumstances upon the production and preservation of the human species, is one of the most important subjects of inquiry; and we have therefore constantly endeavoured to present our readers with the most authentic facts published on this subject, and we believe that there is contained in this Journal, a greater mass of information in relation thereto, than is to be found in any other work published in this country. In a former volume, (Vol. IV. p. 253,) we noticed some of the interesting observations of M. Quetelet, contained in his "Researches on the Population, number of Births, Prisons, and Poor-houses, in the Kingdom of the Netherlands," and which appeared in 1827. M. Quetelet has since published a work entitled "*Recherches Statistiques sur le Royaume des Pays Bas;*" this work we have not been so fortunate as to see, and as it may be a long time before it reaches us, we extract from the *Foreign Quarterly Review*, for February last, the following interesting sketch of the result of M. Q.'s researches.

The succeeding table is compiled from official documents published by M. Quetelet.

Provinces.	Rate of Increase of Population for 5 years to 1825.	Ratio of Population in 1824 to			Ratio of female to male Births in 1824.	Ratio of Births to Marriages in 1824.
		Deaths.	Births.	Marriages.		
North Holland	0.040	34.5	23.2	104.4	0.956	4.50
East Flanders -	0.051	44.8	28.4	165.3	0.946	5.82
Limburg - -	0.053	47.5	29.2	90.3	0.956	3.09
Antwerp - -	0.056	48.8	30.7	142.9	0.960	4.65
Zeland - - -	0.056	31.4	20.7	113.7	0.960	5.49
North Brabant	0.059	51.4	29.2	150.0	0.974	5.14
Namur - - -	0.062	57.9	29.8	150.9	0.907	5.06
Liege - - -	0.065	46.2	28.9	154.1	0.942	5.33
Utrecht - - -	0.068	36.3	24.3	118.2	0.939	4.86
South Brabant	0.068	38.2	26.1	142.2	0.970	5.45
Guelders - -	0.069	53.7	27.6	131.1	0.952	4.75
South Holland	0.070	35.0	23.9	113.3	0.959	4.74
Overyssel - -	0.071	43.5	26.5	121.9	0.937	4.60
West Flanders	0.073	40.7	27.5	137.7	0.930	5.01
Hainaut - - -	0.073	51.1	27.4	136.5	0.921	4.98
Groninguen -	0.078	49.3	28.9	149.3	0.898	5.17
Luxemburg -	0.080	53.8	27.9	149.9	0.967	5.37
Friesland - -	0.086	46.1	27.1	128.7	0.944	5.75
Drenthe - - -	0.087	55.0	27.8	130.3	0.895	4.69
Average for the kingdom	0.062	43.8	27.0	132.4	0.947	4.90
Do. for 1825 -	..	41.0	27.1	127.2	0.943	4.70

The provinces of Drenthe, Friesland, and Luxemburg, thus appear to be those in which the annual increase is the greatest. They are entirely agricultural and pastoral—are more thinly peopled than any others—and are the most healthy, two of them being those in which the proportion of deaths is the smallest in the kingdom. The circumstances of their inhabitants, if not so wealthy as in other parts, are, at any rate, easy; the wages of labour are comparatively high—the poor not numerous—and in one of them, (Drenthe,) the poor colony of Fredericks-oord has been the means of employing industriously the indigent classes. A gradual increase of population might therefore be looked for, since we see a far greater prolongation of life than in other provinces. It is remarkable that the intensity of fecundity in these three provinces varies extremely; that of Drenthe ranking among the lowest, (the 15th,) of the nineteen provinces; that

of Friesland being high, (the 2d;) and that of Luxemburg being about the average. South Holland is also a province where the rate of increase is high, and the intensity of fecundity low; from which facts we are induced to doubt considerably of the value of any speculations upon population, of which the intensity of fecundity is the sole basis. The highest fecundity in the Netherlands is in East Flanders, where the marriages are the fewest, and the annual increase smaller than in any province except North Holland; and it is also high in Zeland, where the annual increase is very small. It is true that in North Holland and Limburg the increase is slow and the fecundity small; but the circumstances of these provinces are identical, not in their populousness, (for one is very thickly, the other very thinly peopled,) but in their unhealthiness; the dampness of their climate, and the exhalations arising from their marsh lands, and stagnant waters, being well known to all who are acquainted with the localities of Maestricht and Amsterdam. There appears, therefore, no reason to believe that the intensity of fecundity has any tendency to diminish in proportion as the population becomes denser; on the contrary, it seems a symptom of an annual increase, and whatever causes promote that increase, appear to contribute to the fruitfulness, rather than to the barrenness of the females of our species.

If any additional proof were wanted to show that the degree in which the power of reproduction is exercised by a nation, is a different thing from its rate of increase, it might be urged, that the proportion of births to a marriage is in Prussia 3 3-4, and in Great Britain 3 3-5, in both which countries the population is advancing faster than in the Netherlands, where it is 4 4-5. The average issue of marriages throughout Europe is, according to Von Malchus,* 4 children; and the annual increase in Europe 2 per cent. on about 215 millions. It is evident that the degree in which this ratio is exceeded, or fallen short of, by particular states, is very far from being dependant upon their actual density, or rarity, of inhabitants; for if this were so, the rate of increase in the Netherlands, Wurtemberg, Great Britain, and the Two Sicilies, (whose inhabitants are respectively about, 5067, 4360, 4043, and 3583 to a square mile,)would be less than in France, Austria, Russia, and Sweden with Norway, where the numbers on a square mile are respectively, 3157, 2628, 649, and 282; whereas the actual rate of increase per annum in the eight countries in question stands thus:—

Netherlands - -	1 1-10 per cent.	France - -	6-11 per cent.
Wurtemberg - -	1 1-2	Austria† - -	1 1-100
Great Britain - -	1 7-10	Russia - -	1 1-20
Two Sicilies - -	1 1-11	Sweden, with Norway	1 1-3

These proportions, given on the authority of Dupin, Von Malchus, and Schnabel,‡ show how far from the truth is the assumption that population diminishes after reaching a certain climax, or that it ebbs and flows like the waves of the sea. We do not pretend to maintain the contrary doctrine—that the more populous a country is, the greater is the rate of increase—but the more facts we see bearing on the subject, the more inclined we become to recognise the principle, that the ratio of the advance of population is naturally far greater than that of the means of subsistence, and that it is the insufficiency of those means that is constantly checking the production, as well as abridging the duration of life of the human species. The Netherlands are a striking instance of the influence of peace and plenty on the multiplication of men; and of the truth of the maxim "A côté d'un pain, il nait un homme." If the proverb had said, "A côté d'un pain, il *vit* un homme," it would have conveyed more clearly to governments the lesson, that, by taking care to provide and distribute subsistence, and to augment that provision to its utmost extent, they do the most in their power to preserve and renovate the inhabitants of their dominions.

* Statistik und Staatenkunde. Stuttgart. 1826.

† The Austrian increase has been variously stated, but as the rate varies considerably in the different parts of the empire, we have adopted M. Dupin's estimate for the whole.

‡ General-Statistik der Europaischen Staaten. Prag, 1829.

It is a principle which ought never to be lost sight of, that population has a constant tendency to fill up the voids made in it by death; and as an example of it, we find that the provinces most exposed to mortality, viz. Zeland and North and South Holland, are precisely those where the births are the most numerous, though the shortness of life is, of course detrimental to society, which wants productive members. This rule is so true, that it is verified even with reference to the seasons of the year; for, after eighteen years of observation, M. Quetelet found that the maximum and minimum of births and deaths in the Netherlands take place almost in the very same months; and the *Jaarboekje*, for ten years, just published, gives the average number as follows, for the months which rank the highest and lowest taking unity as the medium, viz.

Births.		Deaths.	
January - - - -	1.091	January, (Maximum) -	1.196
February, (Maximum) -	1.171	February - - -	1.177
July, (Minimum) - -	.851	July - - - -	.833
August - - - -	.915	August, (Minimum) -	.826

According to the tables of mortality, it appears that at 40 years of age, the probable life is in Holland 26 years—at Amsterdam 22 for males and 25 for females—and at Brussels 24; whilst in Paris it is 21—in Vienna and Berlin 19—and in London but 18 years.* To what causes this superior value of life, at Amsterdam and Brussels over other large cities, is owing, we cannot take upon ourselves to determine; but the difference with regard to children is still more striking, for the probable life, in general, which at Paris is between 8 and 9, at London under 3, at Vienna under 2, and at Berlin a little after 2, falls at Brussels at 23 years, and at Amsterdam, for males at 24, and females at 34. Comparing more closely Brussels and Paris, the proportion of children who die within the first three months, contrasted with the remaining nine months of their first year, is in the former as 1665 to 1384—and in the latter, as 1764 to 693. Nothing would be more useful and interesting than to trace the reasons of this difference; and if it should be found attributable to the more motherly cares of the Dutch and Belgic women, who always nurse their children themselves, it will be a most honourable national fact, and will confirm the remark of M. Benoiston de Chateauneuf,† that for preserving the life of children, care is every thing, and climate little or nothing; Switzerland and Holland, the antipodes of each other in that respect, being the two countries in Europe where fewest of them die.

We have one word more upon fecundity, considered as it fairly may be, as an evidence of a healthy and comfortable state of existence. In the southern provinces there are 5.21 children to every marriage, in the northern only 4.87; both degrees of which are higher than in France, where the proportion of births legitimate and illegitimate, to the marriages, is as 4.76 to 100; and here we have another proof how little the rate of fecundity has to do with the density of the population. The greater frequency of marriages in the Netherlands, may at first suggest a higher degree of morality; they are as 1 to 130 persons, and in France only 1 to 138. We are inclined to think, however, that an allowance must be made for the temptation which the facility of divorce in the Protestant part of the Netherlands holds out, whilst the Catholic Church admits it so rarely, that, in the populous province of East Flanders, there has not been one divorce for ten years. The difference in marriages between the Catholic and Protestant provinces is very considerable; they being in the former, one out of 148, and in the latter, one out of 123. The Hollanders are thus shown to be a more domestic people than the Belgians—a fact very consistent with the greater tranquillity and phlegm of their temperaments.

—

73. *Vaccination.*—The medical officers of the national vaccine establishment,

* Dr. Hawkins, in his Medical Statistics, states the mortality in London to be 1 in 40; in Middlesex 1 in 47; and in England and Wales 1 in 58.

† Considerations sur les Enfans trouves. Paris, 1824.

in their annual report for 1829–30, to the secretary of state for the home department, mention that the small-pox has prevailed epidemically in several parts of England with great severity in the course of the last twelve months, and that not less than twenty-eight well-authenticated instances have been reported to them, from different parts of the kingdom, of the disease having recurred to people who had had it before, either naturally, or by inoculation. We cannot be surprised, therefore, they observe, if it shall have been found that many who have been vaccinated have also contracted the small-pox after it. They say, however, that they have the satisfaction of being assured, on the most unquestionable authority, that vaccination has protected some individuals under the most dangerous exposure to contagion, and that those who have been so unfortunate as to take the small-pox after it, have very generally passed through a mild and safe disease. They state, finally, that they are not disposed to overrate the value of the resource, by considering it as affording a certain security against small-pox in all cases, but that every year places its comparative merit in a more striking point of view, and that they persevere in declaring that they believe it as much more prudent to vaccinate than to inoculate, as it was better to inoculate than to allow the small-pox to take its course without controul.

—

74. *Plague.*—Dr. MADDEN in his Travels in Turkey, &c.—a work which, if not characterized by profoundness of views in relation to medical matters, certainly contains many facts interesting to the physician, and numerous exceedingly sensible observations on human nature—states that he went to the east an unbeliever in the contagion of plague, but that he was forced to change his opinion. The principal facts which he gives in evidence of the contagious nature of the plague are the following:—A lady died at Constantinople of the plague; "several weeks after her death, when two servants were sent to open the apartment, which had been closed, and to remove the bedding, one of them immediately on entering, complained of the closeness of the chamber; next day she had the plague, and died in some few days." Dr. Madden, after visiting a patient with plague, changed his dress, and gave the clothes to his servant to hang up to air; and Dr. M. says, "from them I have every reason to believe he took the disease." This servant was sent to the hospital, and on his way he called on his brother, and shook hands with him; three days afterwards his brother was seized with the plague, and died on the fourth day; and a person "who casually entered the apartment was seized next day, and died." These certainly appear strong facts in favour of contagion, but if Dr. Madden intended they should have the effect of rendering the reader, as it did him, a believer in contagion, he should not have stated in the same letter, that the father of the lady, whose clothes infected the servant, "never left her (his daughter's) bed-side" during her illness, "holding her in his arms, soothing her inquietude, and respiring her last breath, and yet he took not the disease." That the wife of his servant's brother attended on her husband constantly, and "did not take the disease." That he, (Dr. M.) "survived the folly of inhaling the infected atmosphere of plague chambers, sitting on the bedside of pestilential people," "and feeling their ill-conditioned ulcers." "In Candia," says Dr. M. "I passed many nights in a chamber where a mat was the only separation between my bed and that of a man dying of the plague. I was not aware of his disease, nor indeed was any one of my companions, till I was requested to examine him a few hours before his death—*yet no one was infected.*" How will these facts be reconciled with the belief in contagion? It is not our purpose to discuss the question of contagion or non-contagion here; we only quote the circumstances as narrated by Dr. Madden—the reader may form his own estimate of their value.

AMERICAN INTELLIGENCE.

Second Report of Professor Mott's Case of Aneurism, treated by tying the Artery Ultra Tumorem.—After the return of Moses Gardner to the country, he occasionally wrote to me: one of his letters stated, "his breathing was much better, and his friends on calling to see him, were surprised at the improvement, particularly at the disappearance of the tumour." On the 22d of April, however, I received information of his death, with an invitation to examine the body: all that could be ascertained relating to the case, was, that the difficulty of breathing had returned and at times threatened immediate suffocation:—he had confined himself to the most abstemious living, and gradually declined in general health. The dissection was conducted by my demonstrator Dr. Vaché, to whom I am indebted for the following particulars.

"*Dissection.*—On viewing the body, no tumour appeared externally: the right clavicle was rather more elevated than that of the opposite side, and on removing the integuments, it was found partially dislocated from its sternal articulation, the under surface of which has undergone considerable absorption from the pressure of the aneurism. Immediately beneath and imbedded in the surrounding parts was the tumour: it extended from the sternal extremity of the left clavicle, along the inner and upper surface of the sternum, to which it closely adhered, to about midway of the right clavicle, and pressed as low down upon the pleura as the third rib. Laterally it was adherent to the right lung, and posteriorly rested upon the lower cervical and upper dorsal vertebræ.

The trachea was greatly displaced; it was closely attached to the left side of the tumour, passing obliquely downward and backward, and very much flattened by pressure.

On removing the tumour from the body with its connexions, it was about the size of the two fists, and its parietes were found to be firmly consolidated. It emanated from the arteria innominata, involving the subclavian and the root of the carotid. Superiorly it was of a globular form, and inferiorly terminated in an apex, which passed down below the division of the trachea, and behind the aorta. The right carotid was obliterated: the right subclavian, beyond the tumour, was pervious and natural in its structure. The heart and lungs were sound."

On reviewing briefly the circumstances of this case, no one, I may venture to observe, will attribute its fatal termination to a failure of this form of operation, or of the principles upon which it is founded. The attending symptoms, as well as the dissection, fully prove the cause of death to have been the displacement of the trachea, and the consequent pressure of the consolidating tumour upon it and the bronchial tubes. The absence of pulse in the right arm, the œdema and the numbness must also be attributed to the pressure of the tumour. Had the operation been performed at an earlier stage of the disease, there is every reason to expect it would have terminated successfully. Should I have another opportunity, I will operate without any delay, and tie both vessels at the same time, and not leave one for a future performance, to be decided upon by the effect of the first.

It is perhaps a little singular, that a tumour of this magnitude, should not have appeared much larger externally, for it will be recollected that it never exceeded the size of a walnut. I am happy to add, that the diagnosis for aneurisms of the vessels of the neck and shoulder as given by Mr. Wardrop, in his very able work on this subject, has been fully confirmed in regard to this case.

Park Place, June 3d, 1830.

Extract from the Report of a Committee upon the Subject of Osteo-Sarcoma of the Lower Jaw, to a Medical Society of New York, April 1st, 1830. By DAVID L. ROGERS, M. D. Chairman.—The committee to whom was referred the subject of "Operation upon the Lower Jaw," for "Osteo-Sarcoma," Report, That they have diligently examined the subject submitted to their inquiry, and have found much difficulty in fixing the date of the different operations, and in settling the priority of claims. The operation for removing the lower jaw for osteo-sarcoma has been so frequently performed, and so well established, that it is deemed unnecessary at this time to discuss the propriety or practicability of the operation; we shall therefore confine our investigations to the subject particularly referred to your committee, viz. "To whom are we indebted for the introduction of this operation?" In the examination which your committee have bestowed upon this subject, they have not been able to find in the records of surgery a single case in which a portion of the lower jaw was removed for osteo-sarcoma, or even a proposition to that effect prior to the year 1818. In the Dict. Des. Sciences Medicales for 1818, the operation for removing the lower jaw for the cure of osteo-sarcoma is seriously proposed, and an allusion is made to several cases which proved fatal, and the casts of which are to be seen in the College of Medicine at Paris. But no intimation is there offered of the operation ever having been performed for the removal of this disease. The credit of first removing the lower jaw has generally been given to M. Dupuytren. It is true this distinguished surgeon removed a portion of the lower jaw for a "Cancerous Affection of the Gums" in 1812. This case was reported by M. Lisfranc to the Faculty of Medicine at Paris in 1813. This report of M. Lisfranc is republished in the Dict. Des. Sciences Medicales for 1818, Tom. 29, p. 430, who describes the case throughout as a case of cancer, and accurately describes its origin, extent, and connexions, under the name of "Carcinome." It is evident from the silence that was observed upon the subject by the French writers, that it was not considered of much importance, as the case was found among the archives of the Faculty of Medicine, and not brought forward until the year 1818. It is mentioned in general among the diseases of the lower jaw, in connexion with caries, osteo-sarcoma, &c. and it was at this time, when relating the operation of M. Dupuytren, that a removal of a portion of the lower jaw for osteo-sarcoma was proposed. The operation of M. Dupuytren was for a different disease, and of smaller extent when compared to those performed for osteo-sarcoma. It is evident that this operation of M. Dupuytren cannot give him a prior claim to the removal of the lower jaw for osteo-sarcoma. If the removal of a portion of the bone is to establish the claim, then Dr. Whitridge might with as much propriety claim originality, as he extracted one-half of the inferior maxillary bone for a necrosis; Decker removed two-thirds of the lower jaw, and his patient recovered.* These operations were performed anterior to the one performed by M. Dupuytren, and thus far he has no claim to originality, as there exists no greater resemblance between the operations of Decker and Dupuytren, than in the operations of the latter and those of Professor Mott.

Professor Pattison, who witnessed the operation of the French surgeon, makes the following remark:—"Dupuytren, when I was in Paris, removed a considerable portion of the angle of the jaw in a case where a cancerous sore was situated over it. The extent of this operation was however trifling when compared with those executed by Dr. Mott."†

From the authorities which your committee have had it in their power to consult, they are well satisfied that the operation of M. Dupuytren should not be ranked with those formidable cases reported by Mott, Gräfe, and Lallemand. Mr. Burns, in his work on the Anatomy of the Head and Neck, makes no mention of an operation for the removal of the lower jaw for the cure of osteo-sarcoma.

* Medico-Chirurgical Review, No. 28, p. 532.
† Burns' Anatomy of the Head and Neck, Pattison's edition, p. 485.

The first account given of this operation was by Professor Mott in 1822.* This operation was performed on the 19th of November, 1821. The case was a young woman, "aged seventeen years, of a healthy appearance and good constitution." The Professor gives a detailed and interesting account of the disease. From the great extent of the morbid parts, the vascularity of its structure, and the great danger from inflammation to be apprehended, he considered it a necessary preparatory operation to cut off the current of blood by securing the carotid artery in a ligature; the healing of the wound, and the rapid recovery of the case, is doubtless much indebted to this preparatory treatment; at all events it was of great advantage in preventing an useless loss of blood—by this means preserving the energies of the system, and favouring the rapid closure of the wound. Your committee are conscious that many surgeons have removed portions of the lower jaw without this precaution, and have had cause to regret their bold exhibition of surgical skill; nor do your committee believe that it is necessary to secure the carotid artery by ligature in every case in which a portion of the lower jaw is removed, as several cases are reported in which the operators omitted it, some of these cases were attended with terrible hæmorrhage, while others were too insignificant to afford much blood! As an auxiliary in preventing inflammation, no one can for a moment doubt its influence, who has witnessed the effect of cutting off the circulation from inflamed parts. This was in every respect a successful case, and at this date, (1830,) she lives in the enjoyment of good health, which is the strongest testimony that we have to offer in favour of the operation. Professor Mott has performed this operation six times—four of which have been successful.

—

Case of Uterine Hæmorrhage, resulting from an attachment of the Placenta over the Os Uteri, in a second Pregnancy. By W. C. Roberts, Student of Medicine.—*Saturday Morning, March 20th.* At 8 o'clock I was sent for to Mrs. G——, whom on my arrival, I found flooding rapidly: it had seized her while making a violent exertion; and she had lost a good-sized chamber utensil full previous to my arrival. Her pulse was of the natural standard, and she was not at all exhausted. She was of a delicate constitution, had much injured her health by continuing too long to nourish her first child, in addition to which her son, a boy three years old, had laboured for three weeks under a phymosis, and gave her much trouble, being constantly in her arms.

She was in the eighth month of her pregnancy with her second child, and about twenty-six years of age. The usual means of arresting hæmorrhage were instantly resorted to; cold was applied to the abdomen: she was laid on her back on a straw mattrass lightly covered—air freely admitted into the room—alum whey administered, &c. and in a short time the discharge ceased entirely.

During the next week, all continued to do well: no exhaustion followed the loss of blood, but the pulse was as before, natural. On one day only was there some increased heat of skin and head-ache, for which the liquor. ammon. acetat. with laudanum was given; the second dose was rejected by vomiting—a very slight diaphoresis followed, and she slept well. In three or four days she began to be weary of confinement in bed and anxious to rise, and notwithstanding my earnest injunctions to the contrary, her natural restlessness of disposition, and anxiety for her child, induced her to disregard them, and on the Saturday week, I found her up, and dressed as usual. I then informed her of the probable consequences of such imprudence, and particularly desired that she should remain as quiet as possible, and by no means attempt any laborious exercise, or use any kind of stimulus.

Saturday Evening, March 27th.—I was again called to see my patient at 11 o'clock; she was flooding rapidly by gushes, and had already lost a great deal of blood. Pulse yet good—no inclination to faint—and no exhaustion. The means above mentioned were resorted to; but with little more good than

* New York Medical and Physical Journal, Vol. I.

partially to retard the discharge:—several handfuls of snow were placed in the vagina with little or no advantage; tinct. papav. somn. gtt. lxx. were given, and a linen tent dipped in vinegar and water, introduced into the vagina. The flow of blood continuing to be profuse, I called in Drs. Wilkes and Vaché, who had kindly promised me their assistance if any thing untoward occurred.

The hæmorrhage now recurred at longer intervals, and soon after the arrival of the first named gentleman, ceased entirely. The patient's stomach now became extremely irritable, for which the mistura Riverii was occasionally given. She soon, however, vomited with effort a load of dark and undigested food, fortunately without renewing the hæmorrhage. The pulse was yet full, and strength unexhausted; the irritability of stomach partially remained, and there was also considerable restlesness and anxiety to turn over and change her position, soon succeeded by sleepiness, the effect probably of the laudanum.

At half past three, finding that the hæmorrhage had entirely ceased, the pulse good, and the patient inclined to sleep, we left her.

March 28th. At eight, A. M. she was doing well, and had had no return of hæmorrhage. At half past one, Dr. Wilkes saw her with me—her strength was good, and she was perfectly comfortable. At eight, P. M. I visited my patient, she was again bleeding fast, it had come on in her sleep, half an hour before my arrival. The former means, and laudanum gtt. xxx. once again, arrested the discharge.

On the arrival of the two medical gentlemen, an examination was made. The os uteri was found very high up, and dilated to the size of a two-shilling piece, and over it a substance—though whether the placenta or a clot of blood, which it much resembled, was undetermined. It was not until this third attack of hæmorrhage, that it was thought proper to institute an examination, as the two previous ones had been treated successfully by the usual means. The case, from the absence of all the characteristic signs of hæmorrhage arising from the attachment of the placenta over the os uteri, was considered as a simple case of flooding induced by exertion.

The very great rarity of the occurrence of similar cases, in any but those women who had borne many children, in the practice of our most eminent physicians here—the flow of blood being checked by the pains which occurred, instead of "a gush of blood following every effort of the uterus," as observed in placentar attachments by Dr. James Blundell—the fact of the occurrence of the bleeding after severe exertion, and not while, as is observed by the same author, "the patient is asleep, or it may be occupied at the needle, and without any obvious cause," all led irresistibly to this conclusion. But for these circumstances, the plan of rupturing the membranes would have been earlier adopted; the rigidity of the soft parts and closed state of the os tincæ, rendering immediate turning, so warmly recommended by Blundell and others, when practicable, at this time impossible.

Hæmorrhage recommencing profusely, this plan was however decided on, as offering the best possible chance of safety both to the mother and child. But the patient on being informed of the intention, so firmly refused to permit its performance in spite of every argument used to convince her, that it was for the present deferred. A powder of acetas plumbi, grs. iss., pulv. opii, gr. ss. every three hours was directed, and I remained with the patient throughout the night. The first powder, given in water, was rejected by vomiting; as I possessed no means of changing the vehicle, it was not repeated for fear of renewing hæmorrhage. Her night was spent restlessly, with a continual inclination to turn over, eructation, and occasional retching. Towards morning she slept comfortably, and nothing untoward occurring, I left her at 7 o'clock.

March 29th.—It having been decided to take advice from Professor Mott, my preceptor, he saw the patient in consultation at 11, A. M. On examination he immediately pronounced that the placenta was attached over the os uteri, which was lower than before, and could easily be felt by the finger. She was again solicited to permit the rupture of the membranes, but again refused, un-

der the hope that no further hæmorrhage would occur. Her strength and pulse were as before, and she was not at all faint.

On my return at 12 o'clock she was again bleeding, and prepared to submit to what might be thought best to be done for her. I sent for Drs. Wilkes and Vaché, who soon arrived. They again examined, and the os uteri being lower down than before, with some slight dilatation of the soft parts, all doubt as to the existence of the placenta was removed. The attendance of Dr. Mott being required, he arrived about two, and proceeded immediately to rupture the membranes. The os uteri at this time was not larger than a two-shilling piece, and the patient complained of great pain, during the introduction of the hand, from the resistance offered by the vagina. Such being the state of the parts, turning was of course impracticable. The pulse was yet natural, and strength unexhausted.

From this time she became averse to speak, or to answer the questions put to her; her pulse also became more rapid and less full. She had frequent and severe pains in her back, without much bearing down, or any effect on the uterus. Towards night she asked to be fanned continually, and great faintness came repeatedly over her. She drank frequently of cold water, and vomited once or twice; complained often of heat, though lightly covered, and required all present to stand away from the bed. Occasional gushes of water slightly stained by blood were discharged.

Towards 10 o'clock it became evident, from the florid colour of the cloths applied, that the bleeding had recurred. An examination was again instituted, but no effect had been produced on the os uteri. It was now decided to wait no longer for the action of the womb, but to deliver the woman by turning, for which purpose the advice of Dr. Benj. Kissam was requested. He arrived about 2 o'clock, but on touching, conceived that the os uteri was not sufficiently dilated to admit the hand, and proposed the use of ergot, of which ʒij. were infused in three gills of water, and one given every fifteen minutes; five drachms were thus administered, but with no advantage; the pain in the back continued to recur frequently, but with no increased severity; the pulse was small, about 130; and her upper extremities beginning to assume some degree of coldness. The hæmorrhage had ceased almost entirely. She was frequently faint, and desired to be fanned, and to drink water.

Under these circumstances, the existence of her life until the morning being very precarious, she was brought to the foot of the bed at about 4 o'clock, A. M. on Tuesday, (the 30th,) and turning performed by Dr. B. Kissam. The os tincæ was dilated with some difficulty, and on passing the hand through the placenta, the head was found to present. On proceeding to the fundus, which the previous evacuation of the liquor amnii rendered very difficult, one foot only could be obtained, which was brought down, and the child delivered in the most favourable position.

The patient during all this time was perfectly sensible, and often inquired what was doing to her, but immediately that all was accomplished she became restless and uneasy, expressing great anxiety to be removed to bed. A bandage was instantly applied tightly around the abdomen, and brandy and water offered her, which she refused to drink. No bleeding followed. She now spoke rapidly and incoherently; her eyes rolled; she threw her arms about the bed; in about ten minutes after the delivery her eyes became fixed, the jaw fell, and the pulse ceased at the wrist. The heart continuing to beat feebly, for a few minutes she was freely stimulated with ammonia, lavender, brandy, &c. internally, and to the chest and nose; friction instituted on the hands, and bottles full of hot water applied to the feet. These remedies were employed for a long time, but proving unavailing, were at length discontinued.

The fœtus had evidently been dead many hours. It was a male child of a large size. The placenta was large; the chord attached on one side to its extreme edge.

The rapid and sudden demise of the patient after delivery, was owing proba-

bly to the shock on the nervous system, as the exhaustion of the patient at the time was not alarming, nor did a drop of blood follow the removal of the fœtus or placenta.

The very unfrequent occurrence of anomalous placentar attachments under any circumstances, and still greater rarity of the occurrence of the above kind, in a second gestation, which, to use the words of the learned Professor Hosack, in his letter to Dr. Hamilton of Edinburgh, on the use of ergot,* "never takes place but in those women who have borne many children—in other words, in those cases only where the cavity of the uterus has become enlarged by frequent pregnancies, and consequently accompanied by a correspondent enlargement of the uterine vessels and a propensity to hæmorrhage;" the fact that although a gallon of blood at least was expended from the time of the first eruption to the last, without the occurrence of asphyxia or even faintness, as well as the belief that few if any similar cases are on record, will, it is hoped, prove an excuse for the length and minuteness of the above statement of one of the most dangerous and important cases which engage the attention of the accoucheur.

New York, March, 1830.

[The statement made in the text on the authority of several highly respectable obstetrical practitioners, that the attachment of the placenta to the mouth of the uterus rarely takes place even as early as a second pregnancy, and the assertion of Dr. Hosack that this location never occurs but where the uterine cavity has been enlarged by repeated pregnancies, is altogether at variance with our own proper experience. We have certainly met with several cases of this kind in first pregnancies, one of which, within the last six weeks, we witnessed with Dr. James. On mentioning the opinions stated above, to this experienced practitioner, he thought them extraordinary, as he declared he had met with other cases of this occurrence in first pregnancies, besides the one on which we were attending.† We cannot therefore yield to any hypothesis upon this subject, when it is opposed by personal experience; nor can we see the slightest connexion between this untoward location of the placenta and the condition of the uterine parietes after several pregnancies or deliveries. The implantation of the placenta on any portion of the uterine surface, (for it does attach itself to every and any portion at times,) is subject to no hitherto-discovered law of the ovum or the uterus—on the contrary, up to this time, it must be looked upon as altogether uncertain, if not purely accidental. For were this not so, the reasons assigned by Dr. Hosack would lead to the probability that this accident might be looked for in proportion to the number of times the woman may have been delivered, and thus subjecting her to an increased liability every subsequent pregnancy, a circumstance without example, so far as our reading or experience can be relied on. The hypothesis of Dr. Hosack will also justify the conclusion, that the cause of "placentar attachment" resides in a certain condition of the uterine parietes, and totally independent of any circumstance or condition of the ovum itself—a position we believe that is at variance with all observation. For in every presentation of the kind under consideration, it would appear, that, *that portion of the ovum which furnishes the transparent membranes, and which does not display itself until about the fifth month, has been placed, by some unknown cause, upward, and contrary to the usual disposition of this part.* The cause of this departure from the usual disposition of the ovum is altogether inscrutable at present—for so far not even a plausible conjecture has been offered. The occurrence of this accident is rare at all times; it must necessarily be very much more rare in first than in subsequent pregnancies, since first pregnancies bear but a small proportion to the subsequent ones. W. P. D.]

* See his Appendix to Thomas's Practice.

† Dr. E. H. Barton, of St. Francisville, also informs us that he has met with it in a first pregnancy.

Compound Tincture of Benzoin as a Remedy for Scalds and Burns. By William M. Fahnestock, M. D.—Numerous as are the remedies recommended for scalds and burns, we cannot prevail upon ourselves to withhold adding another to the catalogue, which has proved highly serviceable in many cases under our direction; two of which were so extensive and severe as to deserve to be recorded, and may serve to illustrate the efficacy of the remedy.

The first was my brother, a child of four years of age, who fell into a tub of brine, which had just been taken from the kettle—he was scalded from head to foot. Having the tincture at hand, we had it immediately dashed over his face, and as soon as his clothes could be removed, he was kept constantly wet with it. The convulsive symptoms which followed the accident were soon subdued, and so grateful was the application, that the first words he uttered were, "pour more on—pour more on." In the course of ten or fifteen minutes all the pain and distress was assuaged, and he sunk into a sound sleep, from which he awoke and recovered, with scarcely any inconvenience but slight abrasion of the skin, at places where it became corrugated on the parts on which he rested during the application of the remedy.

The second, W. F. R. an infant of four months of age, who, while having his clothes changed, and being entirely naked, had the boiling drippings of a frying pan turned upon him. The chest, abdomen, genitals, nates, and thighs, were deluged with the scalding fat. Being present, an inmate in the house, we had the fat wiped off in an instant and applied the tincture. After continuing to bathe him ten or fifteen minutes, all the unpleasant symptoms subsided, and he became comparatively quite at ease.

Scarcely any redness remained on the scalded surface in either of the above cases, or any thing left to attract attention, but the yellow discolouration of the skin from the tincture. There may be some difficulty in accounting for the precise modus operandi of this article. Whether it be simple evaporation of the alcoholic preparation abstracting heat, an anodyne power suspending nervous exaltation, or a direct revulsion, we have not space, at present, to discuss.

How far the medication may be useful or proper, further experiments must determine. If it act entirely on an anodyne impression, its efficacy may be limited to the early stage of the accident, as in the above cases, before reaction had much advanced. Under this view, the modus operandi may readily be explained—by allaying nervous exaltation, and consequently preventing vascular influx and congestion. If it act by evaporation, the surface had better be exposed, but we have derived more advantage by having the injured part protected by cotton steeped in the tincture. Whether it act as a refrigerant, sedative, or stimulant, we deem it much preferable to the Kentish liniment, or the spirit of turpentine, as it may be applied with much more facility, and without any apprehension of irritating the adjacent parts.

Case of Bloody Infiltration into the Labia Pudendi. By William S. Hendrie, M. D. of Hilltown, Penn. (Communicated in a letter to Dr. Dewees.)—In the fifth number of the American Journal I have observed a case of ecchymosis of the labia—I have lately had one of this nature, so entirely different in its character from that related by Dr. Guild, as to induce me to communicate it to you, although it may not afford any thing new or interesting to one whose extensive practice must frequently present many anomalous cases.

On the 18th of January, 1830, I was called in haste to visit Mrs. ——, in labour with her fourth child, (the youngest being five years old;) the distance was eight miles, and I did not arrive until an hour after the child and placenta had been expelled. When I saw her she had most violent bearing-down efforts, and the midwife informed me another child was on the point of being delivered, which I supposed was the case; as soon as my hands were sufficiently warm I took my seat by the bed, for the purpose of making an examination. I found a tumour about the size of the head of a child; to the first touch I took it for

the head with the membranes stretched over it, but a careful examination soon developed the nature of the tumour, and I proceeded immediately to lay it open by a free incision; in this however I was arrested by the violent gush of florid arterial blood; the hæmorrhage was so profuse that I thought no time should be lost in arresting it, which I finally accomplished by filling the cavity of the wound with lint, and applying a bandage; not less than twenty-four or thirty ounces of blood was lost, however, before this was accomplished. Ten hours afterwards, owing to the excruciating pain occasioned by the distention of the tumour, I was obliged to remove the dressings—no hæmorrhage occurring, I ventured to enlarge the incision, and extract a portion of the coagula, (say sixteen or eighteen ounces.) The charcoal poultice was the only dressing applied to the wound—no inflammation nor sloughing followed—in two weeks the parts were entirely healed and restored to a healthy appearance.

In this case it was evident the effusion proceeded from a ruptured artery. Would it not be the safest plan, in cases of this kind to make a small incision, which would be sufficient to evacuate a portion of the blood, if in a fluid state; on the contrary, if coagulated, it could readily be dilated to remove the contents of the tumour? Had I made a large opening, it is possible I should have experienced more difficulty in arresting the effusion of blood. In parts so very cellular it would be erring to search for the vessel and secure it by ligature.

The sympathy which was called into action in this instance between the uterus and irritation produced by the tumour, appeared singular. The uterine contractions were very violent, and with short intermissions; indeed she described them as more severe than what she experienced before delivery. During the expulsive efforts it was evident that the tumour became more distended, and to such a degree as to induce us to believe, had we not known to the contrary, that a communication existed betwixt it and the uterus.

—

Cases of Fracture of the Liver. By John O. Green, M. D. of Lowell, Mass.—Lewis Hirsch, nineteen years of age, in full health, between three and four o'clock of the afternoon of the 6th of March, was thrown from a chaise in quick motion, by driving against a wagon. He fell with violence, and the wheel was seen to pass over his abdomen. He immediately got up, said he was not much hurt but faint, walked into a store near by, and was helped to bed. A practitioner saw him very soon, and took a table spoonful of blood from his arm, (all he could get,) ordered warm friction, ol. cinnamon, &c. &c.

At 6 o'clock I was called and found him supported in a sitting posture upon the side of the bed, having just vomited. His countenance indicated great distress. The surfaces were extremely pale and cold, as also the tongue. He had no pulse at the wrist, was unable to understand or answer a question, and called incessantly for iced water. He expressed great reluctance to lying down, but submitted to it long enough for me to examine him. He referred all his suffering to a spot a little below the epigastrium, and cried out upon the slightest pressure there. He had no apparent bruise, and a hardly perceptible scratch of the skin over the right hypochondrium.

Every means of restoring warmth was now resorted to and diligently pursued, and a table-spoonful of warm brandy and water given every half hour. I staid until half past ten. In the mean time his symptoms were unaltered, except that he became more willing to keep the horizontal position, and made many attempts to evacuate the bladder and rectum, but without success. He repeatedly and urgently desired me to give him cathartic medicine.

At 2, A. M. I saw him again. He had become very restless, ungovernably anxious for cold water, and had passed urine freely. There was a barely perceptible pulse at the wrist, a cold sweat upon the skin, and respiration short and quick. He seemed comatose, unless roused to cry out by severity of pain. He died at half past five in the morning, fourteen hours after the accident.

At 4, P. M. there was an examination of the body. The abdomen was extremely tense. Upon cutting through the peritoneum dark fluid blood boiled

out, and we removed by sponges about two quarts, and soon discovered the seat of injury to be in the liver. There was a rent commencing at a point in the right circumference of its great lobe, more than eight inches in length, and of such depth as nearly to have separated the half of that lobe from the organ, then shorter rents in radiating directions from the same point, showing a great extent of injury. Considerable portions of the peritoneal covering of the organ were torn off, rolled up, and loose in the cavity of the abdomen. The parietes over the place of the injury were perfectly sound, with no apparent bruise or external mark of any kind.

Within a month of this accident, a stage coach ran over a man in the same street, and almost instantly killed him, the wheels passing over his body.

Upon examination, it was found that large fractures of the liver were the chief internal injury, although in this case several ribs were broken.

Lowell, Mass. July 8th, 1830.

Case of Poisoning with Corrosive Sublimate, in which the Administration of Charcoal afforded great relief.—By WILLIAM P. HORT, M. D. of Bladen county, North Carolina.—August 4th, 1829. John Hidleston, a stout man, of robust constitution, about forty years of age, finding himself much indisposed, and supposing that he was very bilious, determined to take a dose of tartar emetic. Under the impression that the strength of his tartar emetic had become impaired, an idea which is very prevalent in the country, he resolved that the dose should be unusually large, and dissolved nearly a tea-spoonful of tartar emetic, as he supposed, in a cup of warm water; of this solution he drank one-half, and waited for the emetic operation. In about fifteen minutes he was alarmed by a burning sensation increasing rapidly in intensity, and extending gradually from the mouth to the stomach. On examination he ascertained that he had taken *corrosive sublimate* instead of tartar emetic, and immediately sent for me—but I was unfortunately absent at the time, and did not see him until the next morning. On hearing that I was from home, he applied for advice to one of his neighbours, who administered a large dose of Epsom salt about three hours after he had swallowed the solution of corrosive sublimate. When I saw him on the 5th of August, early in the morning, his situation was extremely distressing; he complained of intense burning pain throughout the whole course of the alimentary canal; and the contracted state of the muscles of his face, and general appearance, clearly evinced the severity of his suffering: his skin was cold and clammy; his pulse small, hard, and increased in frequency: he complained of urgent thirst, but had not dared to drink any thing to allay it. The dose of salt taken the day before had operated promptly and violently, producing tormina and tenesmus, and bloody and fetid stools. His physical energies were completely prostrated, and his mind was very irritable. He was bled copiously, probably to the extent of three pints, and I directed him to make free use of the white of eggs beat up with sugar. On the 6th, in the morning, he was worse; his bowels were in constant action; the discharges were still bloody, and very offensive; his skin was cold and clammy; the pulse very feeble and frequent. He said the pain in the stomach and bowels was almost past endurance, and observed that the prescription of the white of eggs and sugar, had produced distressing nausea, and no mitigation whatever of his sufferings.

Convinced that the violent inflammation of the bowels was verging fast towards gangrene, and that the state of extreme debility, to which the constant purging and pain had reduced him, prohibited any further depletion. I ordered a tea-spoonful of finely pulverized charcoal to be administered in gruel every hour, and left him, scarcely entertaining a hope of seeing him alive on the morrow. The next day, August 7th, I called on my unfortunate patient about 10, A. M. and to my great surprise, on approaching his bed, was greeted with a smile; his first expression was, that the charcoal had saved his life. He assured me that shortly after taking the first dose, he had experienced very sensible relief, and that he perceived a regular alleviation of pain after every

succeeding dose. He was evidently much better, and unexpectedly rescued from the grave. I directed him to continue the use of the charcoal, gradually increasing the intervals between the doses for several days—his convalescence was steady, though slow; the purging continued until the tenth day; and several months elapsed before the tone of his stomach and bowels was restored.

A considerable portion of the solution of the corrosive sublimate was undoubtedly carried off by the operation of the salt, or the man must inevitably have perished, as the antidote for the poison was not administered until twenty hours had elapsed, in which time so large a quantity of corrosive sublimate, as he swallowed, would have produced an extent and degree of inflammatory action, which subsequent treatment could neither have subdued nor palliated. When he commenced the use of the charcoal, he was evidently sinking rapidly, and the case appeared quite hopeless. I have since questioned him closely on the subject, and he affirms most positively that the charcoal saved his life, and that he could not be mistaken in the effects of its operation.

—

Case of Scrofula successfully treated with Iodine. By Charles Lee Payne, M. D. of Lexington, N. C.—A negro man, aged twenty-nine, thick lips, thin and delicate skin, about two years ago received some injury from a blow on the face; a few months afterwards the submaxillary glands, and the glands of the neck, began to swell and harden; soon afterwards he was put under medical treatment, but no permanent benefit was derived from the plan pursued, and the glands of the neck became successively more and more enlarged—suppuration took place, and the matter, which was of a sero-purulent and flaky appearance, was discharged by numerous foraminæ.

In this situation, with the neck extremely swollen, the patient came under my care, about the 1st of January, 1829. Without any preparation, I immediately commenced the treatment by giving him twenty drops of the tincture of iodine three times a day, cautiously and gradually increasing it to forty-five drops, and at the same time used the ointment of the hydriodate of potash by friction to the tumours. In three weeks a decided impression was made, but the disease appeared now to remain stationary, which induced me to employ the iodine in larger doses than I had before heard of its being given—forty-five drops three and four times a day, watching however all the time carefully its effects. In this way I continued its use until he had taken about eight ounces of the tincture, when I thought prudent to wait a short time, thinking there might be some danger in going further, and that habit might have some influence in lessening the effects of the medicine. My patient however continued, (without taking any more,) to improve, and in about four months from the time of commencing was discharged perfectly cured. Not a vestige of the disease has since appeared, notwithstanding he has been actively and laboriously engaged at work in the gold mines.

No other medicines were used during the treatment; for I determined at the commencement to test the virtues of the iodine in this disease, unless the case should contraindicate its use, or appear imperiously to require the use of other medicines.

During the whole course of treatment the patient walked about, and never expressed the least uneasiness from the use of the medicine. No other sensible effect was produced on his constitution except that he became considerably emaciated; he however soon gained his usual strength, and became quite fat, after the disease had entirely left him.

The formula used of the tincture was of iodine thirty grains to the ounce of alcohol.

Of the ointment, forty-eight grains of hydriodate of potash to the ounce of prepared lard.

I may be thought imprudent and rash in carrying the dose ten drops higher than it had previously been used, (to my knowledge,) in this country; but

when none of its supposed specific effects were produced, I thought I could venture safely, cautiously to increase the dose.

Entertaining the opinion which I do, that the medical virtues of the iodine are owing to the property it possesses of lessening arterial action, and thereby indirectly promoting the action of the absorbents, it appears to me that in the form of dropsy dependent upon visceral inflammation or obstruction, it would seem to be peculiarly adapted; and as that particular form of the disease has hitherto proved so unmanageable under the most approved remedies, it is certainly worth the trial—and I feel that I am hazarding but little in predicting that experience will prove it to be a valuable remedy.

Professor Dungleston, of the University of Virginia, has given us one case of tubercular phthisis successfully treated by the iodine; and more extensive experience of its use in that disease I think could not fail to raise it higher in the scale of remedies. I have used the iodine in a case of chronic enlargement of the foot and leg, (which presents much the appearance of elephantiasis,) with marked benefit; the tincture and the ointment had not been used more than three weeks before there was considerable diminution in the sore of the foot and leg, which justifies the conclusion, that by a continuance of the same course the disease may be cured. In two cases of enlarged inguinal glands, or bubo, I have used the same medicine with great benefit; indeed, no medicine that I have used appears to have so powerful, and so direct an influence on glandular swellings, be those enlargements or swellings of whatever nature they may, whether scrofulous, syphilitic, or of any other character.

—

Case of Disease of the Heart, with Rupture of the Right Auricle. By Philander H. Thomas, M. D. of Hancock, Mass.—William Potter, æt. 22, of a biliosanguineous temperament, after very severe exertions to reach home in a cold night of the winter of 1827, was attacked with the following symptoms:—Pain in the head and epigastric region; pulse small and languid; tongue slightly coated with a whitish fur; bowels costive; palpitations; and tenmitus aurium. After these symptoms had continued a few days, he was suddenly attacked with difficult and laborious breathing, amounting almost to suffocation; froth issued from his mouth; his lips were swoln and purple; his tongue protruded, his eyes protuberant, but so everted as to conceal the pupil; dark purple appearance of the face and extremities. After continuing in a state of insensibility for some time, during which his breathing was deep and stertorous, and the urine and fæces were passed involuntarily, he slowly recovered. I was called upon to administer to him. After deliberating as to the nature of the disease, I was led to think it a disease of the heart, the nature of which I was not prepared to determine. I bled him, gave him a cathartic, and prescribed a state of quietude and abstinence. Recurrences of the paroxysms were frequent, and other aid was resorted to. Very different diagnoses were given by those who saw him at different times. Some pronounced it epilepsy, arising from a disordered state of the stomach and chylopoietic viscera, and treated him with emetics, cathartics, alteratives, nitras argenti, cupri ammoniureti, zinc. oxyd. &c. &c. Under this course the paroxysms became more frequent and alarming. Another declared it to arise from an excited state of the brain and nervous system, and administered stramonium, laurel water, and other sedatives, with no more benefit than the former. Another thought he discovered symptoms of tænia, and promised some curious old ladies who had never seen such creatures, that they should shortly be gratified with the sight of a whole brood. The male fern, essential oil of turpentine, and essential oil of the juniperus sabina, were to perform the miracle. But alas! they failed, much to the discontent of those who had been so credulous as to believe him.

He recurred again to the advice I had given him soon after he had been attacked, was bled frequently, paid the most rigorous attention to his diet, and kept himself as much as possible in a recumbent posture. Nevertheless the paroxysms

continued, and gradually impaired his intellectual capacity, until at length he was nearly in a state of fatuity. He died in one of the paroxysms, on the morning of the 10th of March, 1830, without having been previously more unwell than usual.

I was apprised of the event, and asked and obtained permission to examine the body.

Sectio Cadaveris, four hours after death, showed that a large quantity of blood had escaped into the thorax. The thoracic viscera were removed—lungs appeared healthy. The inferior and superior cava were very much enlarged, in some places thickened, in others attenuated so as to be nearly transparent. The right auricle had lost every trace of its corrugations, was of a dark-red appearance, with spots of a dark-brown colour, in some places dilated into sacs capable of containing the point of the finger, through the apex of one of which there was an opening three or four lines in diameter. Some flakes of coagulable lymph were on its external surface. The whole was very tender, tearing very readily. Its capacity was five or six times as much as that of the left side. The right ventricle was enlarged to twice its common capacity, its parietes thin and flabby, the columnæ carneæ were small, the mitral valves were so small as to be scarcely recognised. The coats of the pulmonary arteries appeared to be thickened, but the capacity of the vessels less. The left side of the heart appeared to be healthy. The coats of the aorta were very much thickened, although the capacity was less.

Most of the physicians who had seen the patient, were present during the examination, and united in the expression of their belief, that the heart had been the organ affected during his long illness. It had probably been the seat of a chronic inflammation, although the symptoms characterizing that complaint had been wanting. Whatever be the cause of the disease, it produced protracted and poignant suffering, without much chance of relief, even had it been well understood.

Hancock, Mass. June 17th, 1830.

—

Arsenic in Large Doses.—We have received a communication from R. Dakin, M. D. of Columbus, N. J. in which he states, that he has employed, at the suggestion of Dr. Budd, of Mount Holly, N. J. arsenic in large doses, as a remedy for intermittent fever, and with great success. He gives it in the form of pill, in doses of one-fourth of a grain, four times a day—in one case he says he gave as much as five grains in three days. He says that he has never seen any serious injury result from these large doses.

—

Account of a Man who lived on Water for fifty-four days.—This case is published in the first Volume of the Transactions of the Albany Institute, by James M'Naughton, M. D. Professor of Anatomy and Physiology in the University of the State of New York. The subject of the case, a young man aged twenty-seven, for three years immediately preceding his death, almost constantly kept his room, apparently engaged in meditation, a bible his only companion. At the latter end of May, 1829, his appetite began to fail; he ate very little; on the 2d of July he declined eating altogether, "assigning as a reason, that when it was the will of the Almighty that he should eat, he would be furnished with an appetite." For the first six weeks of his fast he went regularly to the well in the morning, washed himself, and took a bowlful of water with him into the house. With this he occasionally washed his mouth and drank a little—the quantity taken during the twenty-four hours did not exceed a pint. On one occasion he went three days without taking water—but on the fourth morning he was observed to go to the well and drink copiously and greedily. For the first six weeks he walked out every day, and sometimes spent a greater part of the day in the woods. He retained his strength until a short time before his death. During the first three weeks he emaciated rapidly, afterwards he did not seem to waste so sensibly.

"Professor Willoughby visited him a few days before he died. He found his

skin very cold, the respiration feeble and slow, but otherwise natural; but the effluvia from the breath, and perhaps the skin, were extremely offensive. During the greater part of the latter weeks of his life, the parents say, that there was a considerable discharge of a foul, reddish matter, from the lungs. To this, perhaps, the offensive smell referred to, may be chiefly attributed. The pulse was regular, but slow and feeble, and what struck Professor Willoughby as most remarkable, was the diminished size of the radial artery. Owing to the emaciation it could be very distinctly felt. It seemed to be as small as a stout thread, and much firmer than natural."

His alvine evacuations were rare; it is believed that he passed several weeks without any—but the secretion of urine seemed more regular. He died after fasting fifty-three days. His body was examined by Dr. Johnson. The stomach was loose and flabby. The gall-bladder was distended with a dark, muddy-looking bile. The mesentery, stomach, and intestines, were excessively thin and transparent. There was no fat in the omentum. No further particulars are furnished us respecting the dissection of this case.

—

Endermic Medication.—Most of our readers are probably aware of its having been announced not long since by Dr. LEMBERT, that remedial articles when applied to the cutis denuded of epidermis, produce their peculiar effects with nearly the same energy as when introduced into the alimentary canal. The favourable reports of this mode of medication, made by Dr. Lembert, has induced many to try it: we have ourselves employed both tonics and narcotics in this way, in cases in which their administration by the mouth was inadmissible, and with very satisfactory results. An extensive and interesting series of experiments have been recently instituted in the Philadelphia Alms-house, by Dr. WILLIAM W. GERHARD, who has employed various tonics, narcotics, cathartics, diuretics, emetics, and also mercury and iodine; and in most instances their peculiar effects were observed to be produced. His experiments indeed fully confirm the favourable reports made by Dr. Lembert. It is perhaps unnecessary to say that the cuticle is raised by a blister, then removed, and the remedial substance applied in powder or mixed with cerate to the denuded cutis; or if fluid, it may be reduced to the consistence of an extract, and spread on a piece of fine linen, or compresses may be soaked in the solution and applied to the denuded part. The dose of the remedy is rather greater than when given in the usual way. The following are the conclusions to which Dr. Gerhard's experiments have led him.

"1. That medicines applied to various parts of the body externally, provided they be placed in direct contact with the vascular surface of the cutis, produce similar effects in doses but little larger than when they are made to act directly upon the gastric mucous membrane.

"2. All medicinal substances have a peculiar affinity for certain organs or tissues, which is entirely independent of their immediate action upon such parts.

"3. That violent irritants or escharotics rarely produce any general effect, although this sometimes occurs.

"4. All other articles of sufficient activity may be used, provided the cutis be not too highly inflamed; when the latter is the case, soothing applications are in the first place necessary, or no absorption will take place.

"5. The endermic medication is peculiarly useful in cases of extreme gastric irritability, and when it is important to modify morbid actions without impairing the integrity of a vital organ.—*N. A. Med. and Surg. Journ. April*, 1830.

—

Perturbating Treatment.—The free use of perturbating remedies is severely censured by M. Broussais and his school, and those who employ such articles are accused of killing their patients with them. This charge is certainly, at least in some instances, unjust. We find recorded in the last No. of the *New York Medical and Physical Journal*, a case in which the greater number of the most active articles that constitute the armament of the physician, were em-

ployed in *ad libitum doses*, and in an almost *incredibly short space* of time, a single night, and yet the patient recovered. This case is entitled "Poisoning from the bite of a spider *successfully treated.*"(!) The patient *supposed* himself to have been bitten by a spider on the 10th of July, and late in the evening of the same day, when seen by the narrator of the case, "he complained of violent pain in his back and loins," "his spasms were extreme and occurred at short intervals; the pulse was small, frequent, and labouring or irregular; the pupils dilated; skin covered with a profuse cold sweat; the urine suppressed; muscular power totally suspended, and the intellectual energies much impaired," &c.

The patient had been already dosed with various remedies, "such as the popular prescriptions in common use for the bites of venomous reptiles, viz. plantain, horehound, boneset, edgeweed, rue, tansey, squirrill's ear, wormwood, milk, oil, spirit, vinegar, and a *farrago* of *other* ineffectual remedies. He had been bled, and a *variety* of topical applications employed, but all to no purpose."

On his arrival, the doctor set immediately to work; he prescribed, we quote his own words, "large opiates, *anodynes*, antispasmodics, and stimulants, both diffusible and permanent; among these were volatile alkali, æther, opium, camphor, amber, compd. tinct. castor, lavender, brandy, cantharides, arsenic, and a *host of others without effect*. *Large doses* of calomel and opium were given, but the bowels were not in a situation to be excited by cathartics while the spasms continued. As no remedy appeared to have the desired effect, although prescribed *ad libitum*, I was necessarily compelled to relinquish most of them, and trust solely to opium and ammonia, as the only medicines that were likely, in the event, to ensure a successful issue." "By pursuing this course through the night," says Dr. H. "*I ultimately succeeded in relieving all symptoms!*" "Much, however," he adds, "might be attributed to the spirit of turpentine, for it was not until this was employed that the disease seemed to yield." It is almost unnecessary to add that the patient's convalescence was a slow one.

What will M. Broussais say to this case? If the patient had died, his death would have been attributed to the remedies—he recovered, and so unjust is the world, that we doubt whether the credit of the cure will be awarded to his physician!

—

Case of Imperforate Hymen.—This occurred in a woman aged twenty, who had been married two years; she had never menstruated. When Dr. J. W. Horton, who relates the case, was sent for, he found a hard tumour occupying the umbilical region, larger than a man's hand. The abdomen was considerably distended, and fluctuation was perceptible on percussion. She had excruciating pains, and rest could only be procured by opiates. Further examination showed a tumour below the pelvis, and projecting at the os externum. This tumour proved to be an imperforate hymen, it was divided with a scalpel, and eight pounds of dark grumous fluid evacuated. Immediate relief was obtained, and the woman has since become pregnant. It is curious, that neither husband nor wife had any suspicion of the nature of this case—they had lived together in perfect amity.—*Baltimore Medical Recorder, April*, 1830.

—

Prize Essay.—The Medical and Chirurgical Faculty of Maryland, offer a premium of one hundred dollars for "An Essay upon the Nature and Sources of Malaria or Noxious Miasma, from which originate the family of diseases usually known by the denomination of Bilious Diseases; together with the best means of preventing the formation of Malaria, removing the sources, and obviating their effects upon the human constitution when the cause cannot be removed."

The dissertations must be delivered to Dr. Henry W. Baxley, Corresponding Secretary, Baltimore, on or before the 1st of May, 1831. "Each dissertation to be accompanied with a sealed letter, superscribed with a motto corresponding with that prefixed to the essay."

Return of Deaths within the City of Charleston, from the 1st of January 1829, to the 1st of January, 1830.

DISEASES.	Under 3 years.	3 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	TOTAL.
Abscess	0	1	0	1	0	0	1	0	0	0	0	3
Accident	0	0	0	1	1	3	1	0	0	0	0	6
Apoplexy	0	0	0	3	6	7	5	4	0	1	0	26
Asthma	1	0	0	0	1	1	2	2	0	0	0	7
Burn	0	0	0	0	0	1	0	1	0	0	0	2
Cancer	0	0	0	0	1	1	0	0	0	0	0	2
Catarrh	10	2	3	0	1	1	1	3	0	1	0	22
Cholera Morbus	0	0	1	1	0	0	0	0	0	0	0	2
Colic	1	0	0	0	0	0	0	0	0	0	0	1
Colic, Bilious	0	0	1	0	1	0	2	0	0	0	0	4
Childbed	0	0	2	2	1	0	0	0	0	0	0	5
Consumption	4	4	16	26	24	13	21	2	2	0	0	112
Convulsions	31	0	0	4	6	2	4	1	0	0	0	48
Cramp	1	0	0	0	1	0	0	0	0	1	0	3
Cramp in the Stomach	2	1	0	0	1	3	0	1	0	0	0	8
Croup	5	1	0	0	0	0	0	0	0	0	0	6
Debility	7	1	1	4	6	5	7	2	5	0	0	38
Decline	0	1	0	1	0	0	0	0	0	0	0	2
Diarrhœa	41	2	1	1	1	3	0	0	0	0	0	49
Disease of the Bladder	0	0	0	0	0	0	0	0	1	0	0	1
Disease of the Heart	0	0	0	0	0	0	1	0	0	0	0	1
Dropsy	4	2	4	2	14	15	9	8	0	1	0	59
Dropsy of the Head	2	1	0	0	0	0	0	0	0	0	0	3
Dropsy of the Chest	0	0	0	0	2	1	1	2	0	0	0	6
Drowned	1	0	1	0	1	1	0	0	0	0	0	4
Dyspepsia	0	0	0	0	0	0	0	0	1	0	0	1
Dysentery	4	2	0	4	1	0	0	3	1	0	0	15
Effects of Dengue	2	0	0	0	2	1	2	0	0	0	0	7
Effects of Laudanum	0	0	0	1	0	0	0	0	0	0	0	1
Epilepsy	0	0	0	2	0	0	0	0	0	0	0	2
Fever, Bilious	1	1	0	2	3	0	1	1	0	0	0	9
Fever, Country	0	0	1	2	0	1	0	1	0	0	0	5
Fever, Nervous	0	0	0	0	0	0	1	0	0	0	0	1
Fever, Remittent	1	0	1	1	0	0	0	0	0	0	0	3
Fever, Typhus	2	0	4	0	1	1	0	0	0	0	0	8
Fever, Worm	9	3	1	0	0	0	0	0	0	0	0	13
Gout in the Stomach	0	0	0	0	0	0	0	1	0	0	0	1
Hæmorrhage	0	0	0	1	0	1	0	0	0	0	0	2
Hernia, Strangulated	0	0	0	0	0	0	0	2	0	0	0	2
Hooping Cough	6	1	0	0	0	0	0	0	0	0	0	7
Inflammation of the Brain	3	1	2	2	1	1	0	1	1	0	0	12
Inflammation of the Bowels	3	0	3	0	0	0	0	2	0	0	0	8
Inflammation of the Glands of the Neck	0	0	0	0	1	0	0	0	0	0	0	1
Inflammation of the Lungs	1	0	0	1	0	0	0	0	0	0	0	2
Inflammation of the Kidneys	0	0	0	0	0	0	0	0	1	0	0	1
Inflammation of the Spleen	0	0	0	1	0	0	0	0	0	0	0	1
Inflammation of the Stomach	1	3	0	0	0	0	0	0	0	0	0	4
Intemperance	0	0	0	3	10	6	0	0	0	0	0	19
Jaundice	0	0	0	1	1	0	0	0	0	0	0	2
Carried over	143	27	42	67	88	68	59	37	12	4	0	547

DISEASES.	Under 3 years.	3 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	TOTAL.
Brought over	143	27	42	67	88	68	59	37	12	4	0	547
Leprosy	0	0	0	0	0	1	0	0	0	0	0	1
Liver Complaint	0	1	0	2	2	7	0	0	0	0	0	12
Locked Jaw	23	0	0	1	1	0	0	0	0	0	0	25
Mania	0	0	0	0	0	1	0	0	0	0	0	1
Marasmus	0	0	0	0	0	1	0	0	0	0	0	1
Measles	11	4	1	0	0	0	0	0	0	0	0	16
Mortification	1	0	0	0	0	0	1	0	0	0	0	2
Nervous Affection	0	0	0	1	0	0	0	0	0	0	0	1
Not Known	0	0	0	0	1	1	0	1	0	0	0	3
Old Age	0	0	0	0	0	0	1	0	26	21	6	62
Palsy	0	0	0	0	1	1	4	6	0	0	0	12
Peripneumony	0	0	0	0	0	0	1	0	0	0	0	1
Pleurisy	0	0	0	0	1	1	0	0	0	0	0	2
Rheumatism	0	0	0	1	1	1	1	1	0	0	0	5
Rupture of Cerebellum	0	0	0	0	1	0	0	0	0	0	0	1
Spasm	1	0	3	0	2	1	1	1	0	0	0	9
Spitting of Blood	0	0	0	0	0	1	0	1	0	0	0	1
Suicide	0	0	0	0	1	0	0	0	0	0	0	1
Scrofula	0	2	1	0	0	0	0	0	0	0	0	3
Sore Throat	3	3	0	0	1	0	0	0	0	0	0	7
Suppressio Mensium	0	1	0	0	0	0	0	0	0	0	0	1
Teething	36	0	0	0	0	0	0	0	0	0	0	36
Thrush	8	0	0	0	0	0	0	0	0	0	0	8
Ulcer	0	0	0	0	1	0	2	0	0	0	0	3
Vomiting of Blood	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	226	39	47	72	101	85	71	52	38	25	6	762

White Males	183	Black Males	205
White Females	124	Black Females	250
Total	307	Total	455

Of the Whites, there were—Natives of this State, 205; of different parts of the United States, 42; Foreigners, 60—307.

Of the whole number, were—Residents of the city, 730; non-residents 32—762. Proportion of deaths to the population of the city, according to the last census, (1824,) about one out of every 36 1-2 of the whole population—one out of every 40 1-4 of the White, and one out of every 33 7-16 of the Coloured population.

By Order of the Board,
JOHN BELLINGER, M. D. *Clerk.*

Summary of the Thermometer, Weather, and Disease, from the 1st of January, 1829, to the 1st of January, 1830.

JANUARY.—*The Thermometer*—ranged from 30 to 69 deg. Fahrenheit.—*Winds*—N. 8 days; N. E. 7; E. 8; S. E. 5; S. 7; S. W. 12; W. 9; N. W. 12.—*Quantity of Rain*—which fell during this month, 4 75-100 inches, 7 rainy days.—*Diseases*—which were particularly prevalent in this month were Catarrhal Affections, Dengue Pains, Rheumatism, Sore Throat.

FEBRUARY.—*The Thermometer*—ranged from 28 to 68 deg.—*Winds*—N. 11

days; N. E. 11; E. 6; S. E. 4; S. 3; S. W. 10; W. 11; N. W. 15.—*Quantity of Rain*—6 40-100 inches, 12 rainy days.—*Diseases*—Catarrhal Affections, Pleurisy, Pneumonia, Rheumatism, Sore Throat.

MARCH.—*The Thermometer*—ranged 36 to 69 deg.—*Winds*—N. 5 days; N. E. 7; E. 7; S. E. 13; S. 8; S. W. 13; W. 10; N. W. 12.—*Quantity of Rain*—5 98-100 inches, 8 rainy days.—*Diseases* of this month have not been satisfactorily ascertained.

APRIL.—*The Thermometer*—ranged from 48 to 78 deg.—*Winds*—N. 7 days; N. E. 1; E. 3; S. E. 6; S. 9; S. W. 18; W. 13; N. W. 6.—*Quantity of Rain*—1 15-100 inches, 3 rainy days.—*Diseases*—Catarrhal Affections, Chicken Pox, Cholera Infantum, Effects of Dengue, Measles, Sore Throat.

MAY.—*The Thermometer*—ranged from 56 to 83 deg.—*Winds*—N. 1 day; N. E. 10; E. 12; S. E. 16; S. 9; S. W. 12; W. 3; N. W. 3.—*Quantity of Rain*—4 10-100 inches, 13 rainy days.—*Diseases*—Intermittent Fever, Measles, Rheumatism, Typhus Pneumonia.

JUNE.—*The Thermometer*—ranged from 72 to 92 deg.—*Winds*—N. 4 days; N. E. 6; E. 9; S. E. 13; S. 8; S. W. 13; W. 8; N. W. 2.—*Quantity of Rain*—6 97-100 inches, 13 rainy days.—*Diseases*—Bilious Cholera, Dengue Pains, Measles, Hooping Cough.

JULY.—*The Thermometer*—ranged from 68 to 90 deg.—*Winds*—N. 2 days; N. E. 3; E. 6; S. E. 8; S. 9; S. W. 21; W. 11; N. W. 2.—*Quantity of Rain*—6 25-100 inches, 16 rainy days.—*Diseases*—Bilious Fever, Cholera Infantum, Diarrhœa, Dysentery, Measles, Partial Dengue.

AUGUST.—*The Thermometer*—ranged from 74 to 88 deg.—*Winds*—N. 3 days; N. E. 7; E. 8; S. E. 6; S. 10; S. W. 17; W. 9; N. W. 1.—*Quantity of Rain*—9 3-100 inches, 17 rainy days.—*Diseases*—Catarrh, Country Fever 1 case, Dysentery, Sore Throat, Yellow Fever 1 case, originating in a child 5 years old, and 1 case, (in the Marine Hospital,) imported.

SEPTEMBER.—*The Thermometer*—ranged from 63 to 87 deg.—*Winds*—N. 3 days; N. E. 15; E. 6; S. E. 5; S. 6; S. W. 10; W. 5; N. W. 3.—*Quantity of Rain*—1 12-100 inches, 6 rainy days.—*Diseases*—Catarrh, Cholera Infantum, Croup, Diarrhœa, Measles, Remittent Fever of Children, Sore Throat.

OCTOBER.—*The Thermometer*—ranged from 55 to 80 deg.—*Winds*—N. 14 days; N. E. 19; E. 4; S. E. 4; S. 1; S. W. 6; W. 4; N. W. 4.—*Quantity of Rain*—20-100 of an inch, 5 rainy days.—*Diseases*—Catarrhal Affections, Nervous Fever.

NOVEMBER.—*The Thermometer*—ranged from 32 to 70 deg.—*Winds*—N. 2 days; N. E. 11; E. 4; S. E. 6; S. 4; S. W. 11; W. 10; N. W. 13.—*Quantity of Rain*—45-100 of an inch, 1 rainy day.—*Diseases*—Catarrhal Affections, Measles.

DECEMBER.—*The Thermometer*—ranged from 35 to 75 deg.—*Winds*—N. 0; N. E. 13; E. 6; S. E. 13; S. 0; S. W. 6; W. 2; N. W. 4.—*Quantity of Rain*—4 15-100 inches, 12 rainy days.—*Diseases*—Catarrhal Affections, Measles.

TOTAL.—*Range of the Thermometer*—from 28 to 92 deg.—*Quantity of Rain*—50 55-100 inches, 113 rainy days.—*Winds*—N. 60 days; N. E. 110; E. 79; S. E. 99; S. 74; S. W. 149; W. 95; N. W. 77.

By Order of the Board,

JOHN BELLINGER, M. D. *Clerk.*

INDEX.

A.

Abercrombie's case of paralysis, 226.
———— case of disease of processus dentatus, 226.
———— case of paralysis of muscles of one side of the face, 227.
———— case of disease of the brain, 230, 231.
———— case of disease of the spinal cord, 232.
Abscess in the brain, 493.
Absorbents, pus in, 495.
————, blood in, 219.
Abstinence, case of, 543.
Acetate of copper, poisoning with, 259.
Acetic ether, 261.
Adventitious structures, 496.
Albumen, new proximate principle of, 261.
Amaurosis, 241, 506.
Amelung on otorrhœa, 237.
———— on stramonium, 235, 237.
Ammoniac, plant of, 299.
Amputation of penis, 249.
Anatomical and pathological tables, 186.
Anatomy, comparative, 200.
————, general and special, 203.
————, Address of the Massachusetts Medical Society respecting, 210.
————, Munz's, 463.
————, Brierre de Boisment's, 479.
Aneurism, 242, 245, 511, 532.
Angina, epidemic, 181.
Anus, fissure of, 248.
Aphonia and idiotism from fright, 220.
Arnott on stuttering, 233.
Arsenic, detection of, 258.
————, poisoning with, 523, 524.
———— as a remedy in intermittent fever, 543.
Ascites, 237, 503.
Auchincloss's case of palsy, 259.
———— case of nævus, 247.

B.

Bamboo Ram Comel on mudar, 50.
Barton on injuries of the eyes, 504.
Barres on vaccination, 264.
Batavia, climate of, 380.
Bayle on iodine in lymphatic tumours, 238.
Baynham's case of retroflection of the uterus, 521.
Beale on deformities, 476.
Beck on diseases of the ear, 459.
Behr's case of congenital want of iris, 215.
Bell on diseases of the teeth, 213.
Belladonna in neuralgia, 503.
Benzoin, compound tincture, 535.
Beral's new medicinal preparations, 497.
Bettner on climate and diseases of Batavia, 380.
Bile, analysis of, 262.
Blackmore's case of malformed heart, 480.
Bland's cases of hallucinations, 229, 230.
Blood-letting, 172, 504.
Boivin's case of aphonia and idiotism, 220.
Bone, regeneration of, 216.
Braconnot's analysis of bile, 262.
Brain, affections of, 230, 231,
————, injury of, 509,
Breton's case of wound of the stomach, 518.
Brierre de Boisment's anatomy, 479.
Brodie on iodine, 500.
Bronchia, foreign body in, 518.
Bronchocele, 516.
Broussais's atlas historique, 214.
———— experiments on colouration of the tissues, 483.
———— writings, 418.
Bullet forceps, 266.
Burns, treatment of, 503, 538.
Burserius' institutes of medicine, 468.
Byrne's case of recto-vesico-vaginal fistula, 70.

C.

Cæsarean operation, 521.
Cainça, 236, 262.
Callao, topography of, 343.
Camphor, 236.
Cancer of eyeball, 241,
Cantharides, poisoning with, 493.
Carter on mania a potu, 321.
Carus's gyæncology, 429.
Caspar on injuries of the spinal marrow, 192.
Cayroche's case of gastrotomy, 245.
Charcoal as a remedy for poisoning with corrosive sublimate, 540.
Charleston, bills of mortality and weather of, 546.
Chiesa, detachment of placenta by cold injections, 521.
Chopart on diseases of the urinary organs, 461.

Chloride of lime as a cure for ozena, 264.
Christison's case of poisoning, 523.
Circulation, Jackson on, 364.
Claret's cases of neuralgia, 503.
Clavicle, dislocation of, 253.
Collard de Martigny on pulmonary absorption and exhalation, 485.
——————— on gaseous exhalations from the skin, 485.
Colouration of the tissues, 483.
Conquest's case of hydrocephalus, 514.
Copaiba, 499, 526, *ib.*
Corrosive sublimate, poisoning with, 540.
Couper's case of disease of the maxillary sinus, 519.
——— case of laceration of the kidney, 520.
——— case of extirpation of the eye, 241.
Coxe's American Dispensatory, 274.
Courbe's new proximate principle of albumen, 261.
Cranium, fracture and depression of, 252.
Crepitating rattle, 492.
Cruveilhier's pathological anatomy, 209.

D.

Dakin on arsenic, 543.
Deformities, 476.
Delirium tremens, 17, 321.
De Meza's case of twins, 484.
Dengue, 267, 495.
Devergie on the mode of determining the period that a body has been under water, 260.
Desruelles on the treatment of syphilis, 274, 394.
Devilliers on the salicine in intermittent fevers, 240.
Dislocation of the clavicle, 253.
——————— of the radius, 254.
Donne on vegeto-alkaline poisons, 235.
Dorfmuller's treatment of burns, 503.
Drowning, 260.
Dubled's case of communication between the lymphatics and veins, 216.
Duges's case of malformed heart, 483.
Dupuytren's treatment of strangulated hernia, 246.
——————— case of amaurosis, 506.
——————— treatment of fissure of the anus, 248.
——————— method of removing fibrous polypi from the uterus, 249.
——————— treatment of vesico-vaginal fistula, 254.
——————— case of tetanus, 507.
——————— on union of wounds, 507.
——————— treatment of hernia humoralis, 510.
——————— case of tracheotomy, 517.
——————— cases of foreign bodies in the trachea, 517, 518.
Dupuytren's case of polypus tumour in larynx, 518.

E.

Ear, diseases of, 459.
Eber's case of ileus, 502.
Elbow joint, excision of, 311.
Electro-puncturation, 477.
Electricity, influence of, on putrefaction, 525.
Elephantiasis, 311.
Elliott, obituary notice of, 275.
Emangard on epidemic angina, 181.
Encyclopedia, 202.
Endermic medication, 544.
Endosmose of gasses, 217.
Erbel's case of herpes, 519.
Ergot of rye, 503.
Eyeball, extirpation of, 241, 349.
Eyes, injuries of, 504, 506.
——, diseases of, 507.

F.

Face, paralysis of, 503.
Fahnestock's cases of fracture, 267.
——————— treatment of burns, 538.
Faust on malaria, 38.
Fever, bleeding in cold stage of, 504.
——, pathology of, 485.
Fistula, recto-vesico-vaginal, 70.
——, vesico-vaginal, 254.
Flourens on regeneration of bone, 216.
Fractures, 253, 267.
Fungus hæmatodes, 302, 474.

G.

Galenzowski's case of amaurosis, 241.
Gall's system, 193.
Gaseous exhalation from the skin, 485.
Gastrotomy, 245.
Gerber on copaiba, 499, 526.
Gerhard on endermic medication, 544.
Girouard's case of hernia, 248.
Godman, obituary notice of, 274.
Goodhue, obituary notice of, 275.
Graham on reciprocal action of gasses through animal membranes, 217.
Granger's case in which life was supported by the absorption of the fluids of the body, 217.
Green's cases of fracture of the liver, 539.
Guesne on crepitating rattle, 492.

H.

Hematosis, Jackson on, 114.
Hall on blood-letting, 172.
Hallucinations, 229, 230.
Hannay on pathology of fever, 485.
Harless on phosphate of quinine, 499.
Hawkins's case of phlebitis, 495.
Head-ache, 503.
Heart, diseases of, 139, 542.
——, malformation of, 480, 483.

Hæmorrhage, uterine, 534.
Hemorrhoids, 315.
Hendrie's case of rupture of the uterus, 351.
——— case of bloody infiltration in labia pudendi, 538.
Hennen's case of fracture and depression of the cranium, 253.
——— Military Surgery, 274.
Henry's preparation of urea, 261.
Herpes cured by excision, 519.
Hernia, 246, 248.
——— humoralis, 510.
——— of the stomach, 492.
Heustis on the liver and spleen, 73.
Hodgkin on adventitious structures, 469.
Holmes's case of vagitus uterinus, 259.
Hooping-cough, 238.
Horner on ozena, 264.
———'s general and special anatomy, 274.
Hort's case of poisoning, 540.
Horton's case of imperforate hymen, 545.
Hueter's case of ophthalmia, 240.
Hugueir's case of Cæsarean section, 251.
Hutchison's case of phlegmasia dolens, 495.
Hydrocele, 254.
Hydriodic ether, 262.
Hydrocephalus, tapping for, 514.
Hydrocyanic acid, treatment of persons poisoned with, 239.
——— ———, lesions from, 228.
——— ———, mode of detecting, 262.
——— ———, syrup of, 235.
Hymen, imperforate, 545.

I.

Ice as a remedy for ophthalmia, 507.
Ileus, 502.
Intermittent fevers, 240.
Iodine, 238, 496, 500, 541.
Iris, congenital want of, 215.

J.

Jackson on the pulse, 104.
——— on hematosis, 114.
——— on the pathological states of the circulation, 364,
Jackson on rhubarb in hemorrhoids, 315.
Jahn on the morbid effects of iodine, 496.
Jones's bullet forceps, 266.
Jones's address, 274.

K.

Kahleiss on hooping-cough, 238.
Kidney, laceration of, 520.
Knee joint, excision of, 512.
Knox's case of procidentia uteri, 257.

L.

Laennec's abandonment of tartar emetic, 237.
Labia pudendi, bloody infiltrations in, 538.
Langenbeck's surgical pathology and therapeutics, 206.
Larrey on hydrocele, 516.
———'s case of extirpation of scirrhous tumour, 576.
——— case of wound of the eye, 506.
——— case of amputation of shoulder joint, 515.
Larynx, death from closure of, 223.
Lehman's meteorological observations, 126, 353.
Lemon, essential oil of, 507.
Lindsly's case of extirpation of the eye, 349.
Lithotrity, Rigal on, 188.
Liver, fracture of, 539.
Liver and spleen, Heustis on, 73.
Lizars on excision of upper jaw, 513.
Lobstein's case of melanosis, 223.
Lugol on scrofula, 408.
Lyford's case of dislocation of clavicle, 253.
Lymphatics and veins, communication between, 216.

M.

Macculloch on intermittent and remittent diseases, 274.
Macfarlane's case of prolapsus ani, 254.
Machlachlan's case of hydrocele, 254.
Madden's opinion of plague, 531.
M'Fadzen on water dressings, 252.
——— on tinea capitis, 252.
M'Naughton's case of abstinence, 543.
Malaria, 38.
———, prize for an essay on, 545.
Mania a potu, 17, 321.
Mateucci on the influence of electricity on putrefaction, 525.
Maunsell's case of injury of the brain, 509.
Maxillary sinus, disease of, 519.
Mayer's account of a cicatrix of the uterus, 257.
Meckel's Tabulæ Anatomico-Pathologicæ, 186.
Meckel's Comparative Anatomy, 200.
Medico-Chirurgical Transactions, 469.
Melanosis, 223.
Melhausen on ergot as a febrifuge, 503.
Memory, partial loss of, 216.
Meningitis, 493.
Mental derangement, 228.
Meteorological observations, 126.
Montault's case of paralysis, 503.
Montgomery's case of carotid aneurism, 242, 511.
Morphine as a cure for head-ache, 503.
Mortality of Charleston, 546.
——— of different classes of society, 264.
——— of Paris, 263.

Mott's case of aneurism, 532.
—— excision of lower jaw, 533.
Mudar, 500.
Muenz's Anatomy, 463.

N.

Necrology.
J. D. Godman, 274.
S. Elliott, 275.
J. Goodhue, 275.
Netherlands, statistics of, 528.
Neuralgia, 503.
Nitre as a remedy for scurvy, 501.

O.

Obstetrical statistics, 526.
Olivier's case of aphonia, 222.
Operations performed at the solicitation of the patient, 251.
Oppert's case of small-pox, 485.
Ophthalmia, 240, 507.
Orfila on hydrocyanic acid, 228.
—— on hydrocyanic syrup, 235.
——'s treatment of persons poisoned with hydrocyanic acid, 239.
——'s case in which arsenic was detected seven years after death, 258.
Osiander's manual of midwifery, 475.
Osteo-sarcoma, excision of lower jaw for, 533.
Otitis, 494.
Otorrhœa, 237.
Ozena, 265.

P.

Paillard on the treatment of aneurism, 245.
—— on operations performed at the solicitation of the patient, 251.
Paralysis, 99, 217, 218, 226, 227, 239, 503.
Paris, mortality of, 263.
Payne's case of scrofula cured with iodine, 541.
Pelletier and Caventou on cainça, 236.
Penis, amputation of, 249.
Perturbating treatment, 544.
Phlebitis, 495.
Phlegmasia dolens, 495.
Philadelphia Medical Society, 274.
Phrenology, 193.
Phthisis, laryngeal and tracheal, 161.
Placenta, detachment of, by injections, 521.
—— attached over the os uteri, 536.
Plague, 531.
Poisoning, 258, 259, 493, 524, 525.
Poisons, vegeto-alkaline, 235.
Polypus in the larynx, 518.
Pregnancy, case of, 33.
Processus dentatus, disease of, 228.
Prolapsus ani, 245.
Pterygium, 242.
Pulmonary exhalation, 485.
Pulse, Jackson on, 104.
Putrefaction, influence of electricity on, 525.

Q.

Quetelet's statistics of the Netherlands, 528.
Quinine, taste of sulphate of, 499.
——, phosphate of, 499.

R.

Radius, dislocation of, 253.
Raison's cases of ascites, 503.
Rawson's case of perforation of the stomach, 391.
Renne's case of aphonia, 222.
Richards' case of excision of cervix uteri, 509.
Ricord on head-ache, 503.
Rieke's statistics of Wurtemberg, 506.
Rigal on lithotrity, 188.
Roberts' experiments on vaccine virus, 485.
Rogers' case of uterine hæmorrhage, 534.
Rouquairol's case of poisoning, 493.
Ruan's case of elephantiasis, 311.
Ruschenberger on diseases of the liver, 343.
Rust's case of pterygium, 242.
—— on ice as a remedy for ophthalmia, 507.

S.

Sachse on diagnosis of laryngeal and tracheal phthisis, 161.
Salicine, 240.
Sarlandiere on electro-puncturation, 477.
Sarsaparilla, 499.
Scarpa's surgical works, 205.
Schweinsberg on the taste of sulphate of quinine, 499.
Scirrhous tumours, 473, 516.
Scrofula, 408, 541.
Scrotum, elephantiasis of, 311.
Scurvy, 501.
Senn's case of death from closure of larynx, 223.
Serous cysts, 469.
Serrullas's preparation of hydriodic ether, 262.
Sewall's case of fungus hæmatodes, 302.
Shoulder joint, excision of, 515.
Small-pox, 485.
Smart's case of tetanus, 337.
Spinal marrow, injuries of, 192.
—— cord, disease of, 232.
Spleen, functions of, 73.
Stabb's case of bone lodged in trachea, 251.
Statistics, 526.
Stomach, enlargement and hernia of, 492.
——— wound of, 518.
——— perforation of, 391.

Stomach, ulceration of, 224.
Stramonium, 235, 237.
Strychnia, 239.
Syme's treatment of indolent ulcer, 250.
——— excision of elbow joint, 511.
——— excision of knee joint, 512.
Syphilis, 394.
Szowits on gum ammoniac plant, 499.

T.

Taliaferro's case of paralysis, 99.
Tapping for hydrocephalus, 515.
Tartar emetic, 237.
Tetanus, 337, 508.
Thomas's case of disease of the heart, 542,
Tinea capitis, 252.
Toy's case of pregnancy, 33.
Trachea, bone lodged in, 251.
Tracheotomy, 517.
Travers on syphilis, 394.
Treviranus on phlegmasia dolens, 495.
Twins united, 483.
———, curious case of, 484.
Twining's clinical reports, 504.

U.

Ulcer, indolent, 250.
———, wax as an application, 252.
Union, Dupuytren on, 508.
Upper jaw, excision of, 513.
Urea, 261.
Urinary organs, 461.
Uterus, excision of the neck of, 509.
———, extirpation of, 247.
———, rupture of, 351.
———, fibrous polypus of, 249.
———, retroflexion of, 521.
———, cicatrix after Cæsarean section, 257.

V.

Vaccination, 264, 530.
Vaccine virus, 485.
Vagitus uterinus, 259.

W.

Waldron's case of scirrhous pylorus, 224.
Waring on dengue, 267.
Water as an application to ulcers, &c. 252.
Wax as an application to ulcers, 252.
Weber's general and special anatomy, 203.
Werlitz on oil of lemon, 507.
Wood's case of poisoning, 524.
Worship's case of minute derangement, 228.
Wright on warm bath, 17, 302.
Wurtemberg, statistics of, 526.

Y.

Yvan's case of enlarged stomach, 492.

Z.

Zavagli on oily embrocations in otorrhœa, 237.

QUARTERLY
MEDICAL ADVERTISER.

IN consequence of the extended circulation of the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, the Proprietors intend, in compliance with the wishes of many of their Friends, to increase the facilities for advertising, hitherto possessed by it. For this purpose, a Sheet of Advertisements will be prefixed to the succeeding Numbers of the Journal. All Booksellers, Medical Gentlemen, and others desirous of taking advantage of this mode of announcement, will please address their Advertisements to CAREY & LEA, Philadelphia, by the 10th day of the month preceding that of the publication of the Journal, viz. on 10th July, 10th October, 10th January, and 10th April.

TERMS.

For one page - - - - - - - -	Six dollars.
Half a page or less - - - - - -	Three dollars.

Philadelphia, January 20, 1830.

UNIVERSITY OF PENNSYLVANIA.

MEDICAL DEPARTMENT.—SESSION 1830-31.

THE Lectures will commence as usual on the 1st Monday in November, and be continued until the ensuing March.

Anatomy - - - - -	By PHILIP S. PHYSICK, M. D. WILLIAM E. HORNER, M. D.
Institutes and Practice of Medicine - - - - -	By NATHANIEL CHAPMAN, M. D. SAMUEL JACKSON, M. D.
Materia Medica and Pharmacy	By JOHN REDMAN COXE, M. D.
Chemistry - - - - -	By ROBERT HARE, M. D.
Surgery - - - - -	By WILLIAM GIBSON, M. D.
Midwifery - - - - -	By THOMAS C. JAMES, M. D. WILLIAM P. DEWEES, M. D.

Clinical Instructions in Medicine and Surgery are delivered at the Philadelphia Alms-House and Pennsylvania Hospital.

W. E. HORNER, *Dean.*
No. 263, *Chesnut street.*

Philadelphia, July, 1830.

MEDICAL COLLEGE OF OHIO.

This Institution, located in Cincinnati, was first created in the year 1819, by a charter from the legislature of the state. But owing to a variety of untoward circumstances, it enjoyed but a slender degree of prosperity, down to the year 1826; when those in whose hands its government was lodged, procured a modification of its charter; by which, plenary power of appointing and dismissing the members of its faculty—of managing its funds—and of directing the whole

of its precedure, was vested in a board of trustees, whose duty is, to submit annually to the legislature, a full report of its condition.

Since that time, its success has been regularly progressive—the number of its students during the session 1827–8, having been 103, during that of 1828–9, 113, and during that just past, 123.

The funds with which the liberality of the state has endowed it, was at first employed to erect a suitable college edifice, calculated to accommodate a class of at least 300; and has since been turned to the purpose of providing it with a Library and an Anatomical Museum. To both these, the trustees are preparing to make large additions during the present summer; having sent an agent to Europe for the purpose.

From its connexion with the Commercial Hospital and Lunatic Asylum of Ohio, an establishment of considerable extent, of which its faculty are the medical officers, it is enabled to afford its pupils, upon a pretty extensive scale, the advantages of clinical instruction.

In respect to its requisitions for graduation, it has placed them at the highest standard, which it has yet been able to discover, that any of the older schools of this country has adopted. And it is moreover anxious to see these requisitions placed at a yet higher standard. But being young and feeble, it has not adventured to depart, in this important matter, from the example of its abler and more powerful sisters.

The cost of its full course of Lectures is $62: and of its matriculation together with admission to the Hospital, is $3. The students have hitherto boarded in respectable families at prices, varying from $1 75, to $2 50 per week.

Its Professors are as follow:—

JEDEDIAH COBB, M. D. *Anatomy and Physiology.*
CHARLES E. PIERSON, M. D. *Materia Medica.*
JESSE SMITH, M. D. *Surgery.*
ELIJAH SLACK, A. M. *Chemistry and Pharmacy.*
JOSIAH WHITEMAN, M. D. *Obstetrics and Diseases of Women and Children.*
JOHN MOORHEAD, M. D. *Theory and Practice of Physic.*

MEDICAL COLLEGE OF SOUTH CAROLINA.

The Exercises of this Institution will be resumed on the 2d Monday in November, on the following branches:—

Anatomy - - -	By JOHN EDWARDS HOLBROOK, M. D.
Surgery - - -	By JAMES RAMSAY, M. D.
Institutes and Practice of Physic - - -	By S. HENRY DICKSON, M. D.
Materia Medica -	By HENRY R. FROST, M. D.
Obstetrics and Diseases of Women and Children	By THOMAS G. PRIOLEAU, M. D.
Chemistry and Pharmacy	By EDMUND RAVENEL, M. D.
Pathological and Surgical Anatomy - -	By JOHN WAGNER, M. D.
Demonstrator of Anatomy	JOHN WAGNER, M. D.

The requisitions for a Degree are, that the Candidate shall have attained the age of twenty-one years, shall sustain a good moral character, and shall have studied medicine three years under some established practitioner. He shall also have attended two full courses of Lectures of the *first named six Professors*,

or one similar full course at some other respectable school, previous to his becoming a member of this Institution.

Those who have for two seasons, taken the tickets of any or all the Professors, shall be entitled to admission to his, or their Lectures, without further expense.

Each candidate for a Degree shall present, on or before the first day of March, of his second session, a Thesis or Dissertation connected with medicine, which having been inspected, and approved by one of the Professors, he shall be called up and privately examined by the Faculty—they being satisfied with his acquirements, the Degree will then be conferred by the Society.

A premium is annually offered by the Society, for the best Dissertations in the Greek and Latin languages, and another by the Faculty, for the best Dissertation in the English language.

Students at their first session, are required to make application to the Dean for a ticket of Matriculation, this being considered evidence that he has placed himself under the government of the College.

Good boarding can be obtained at $4 per week, and books purchased upon the most reasonable terms.

HENRY R. FROST, *Dean of the Faculty.*

Charleston, July 7th, 1830.

MEDICAL INSTITUTE OF PHILADELPHIA.

The Summer Course of Lectures will begin on Monday the 6th day of April, and end on the Saturday preceding the first Monday of November. The month of August is a vacation.

NATHANIEL CHAPMAN, M. D.
On the Practice of Medicine.

WM. E. HORNER, M.D.
On Anatomy.

WM. P. DEWEES, M. D.
On Midwifery.

JNO. K. MITCHELL, M. D.
On Chemistry.

THOS. HARRIS, M. D.
Surgeon U. S. Navy,
On Operative Surgery.

JOHN BELL, M. D.
On the Institutes of Medicine, and Medical Jurisprudence.

SAML. JACKSON, M. D.
On Materia Medica.

HUGH L. HODGE, M. D.
On the Principles of Surgery.

Philadelphia, January 14, 1830.

PRIVATE MEDICAL INSTRUCTION.

The Subscribers have associated for the purpose of giving a complete course of Private Medical Instruction—and will receive pupils on the following terms:—

The pupils will be admitted to the practice of the Massachusetts General Hospital, and will receive Clinical Lectures on the cases which they witness there, from Drs. Jackson, Channing, and Ware.

Private Instruction with Examinations will be given in the intervals of the public Lectures of the University,

On Midwifery, and the Diseases of Women and Children, and on Chemistry - - - -	By Dr. CHANNING.
On Physiology, Pathology, and Therapeutics -	By Dr. WARE.
On the Principles and Practice of Surgery -	By Dr. OTIS.
On Anatomy, Human and Comparative - -	By Dr. LEWIS.

Private Instruction will be given in Practical Anatomy, by means of demonstrations and dissections, throughout the year. The best opportunities will be afforded for this branch of study, which the nature of the case will admit; and constant personal attention will be given in this department by Drs. Otis and Lewis.

Such students as may be disposed will have opportunities of acquiring a knowledge of Practical Pharmacy.

Rooms for all the purposes contemplated, have been provided in a convenient and central situation, where the hours of attendance may be from 6 A. M. to 9 P. M. The expenses of fuel and lights will be defrayed by the pupils.

Arrangements have been made for the accommodation of students in respectable boarding places, in the neighbourhood of these rooms, at from $2 75 to $ 3 00 per week.

The fees will be—

For One Year - - - - - - - - -	$ 100.
For Six Months - - - - - - - -	$ 75.
For Three Months - - - - - - - -	$ 50.

The fees are to be paid in advance. No credit will be given except on sufficient security of some person in Boston, nor for a longer period than six months.

Applications are to be made to Dr. WALTER CHANNING, *Tremont street*, opposite Tremont House, Boston.

JAMES JACKSON,
WALTER CHANNING,
JOHN WARE,
GEORGE W. OTIS, Jr.
WINSLOW LEWIS, Jr.

Boston, April 26, 1830.

PUBLIC VACCINE INSTITUTION OF PHILADELPHIA.

The Select and Common Councils of the City of Philadelphia, having so altered the ordinance providing for the gratuitous vaccination of the poor of said city, as to make it the duty of four individuals; and the subscribers having been appointed to the performance of the above duties, would respectfully inform the Medical Profession throughout the United States, that it is their intention to keep a constant supply of genuine fresh vaccine virus, which they will supply on receiving a small remuneration for the extra trouble it will occasion. Applications, (post paid,) enclosing three dollars, addressed to either of the subscribers, will be promptly attended to.

DAVID C. SKERRETT, M. D.
No. 155, *South Tenth street.*

GEORGE SPACKMAN, M. D.
Twelfth street, one door below Race.

JOSEPH PANCOAST, M. D.
No. 103, *Walnut street.*

AMOS PENNEBAKER,
No. 91, *North Fourth street.*

MARYLAND VACCINE INSTITUTION.

The "*Medical and Chirurgical Faculty of Maryland,*" at their annual convention, held in the city of Baltimore, on the 7th instant, having established a "*Vaccine Institution,*" for the preservation and distribution of *Genuine Vaccine Virus,* and appointed the subscriber agent, he respectfully informs the medical practitioners throughout the United States, that he keeps on hand a constant supply of *Genuine fresh Vaccine matter,* which may be had by application in person, or writing, at all seasons of the year, and at an hour's notice. Price for a single *scab,* or *crust,* two dollars. Orders enclosing the above sum on specie paying banks, *(post paid,)* will be attended to with promptness and despatch, or by remitting five dollars, when three crusts will be furnished. Letters to be addressed to

WILLIAM ZOLLICKOFFER, M. D. *Vaccine Agent.*

Baltimore, June 15th, 1830.

PHILADELPHIA VACCINE INSTITUTION

Established in the year 1822, *with the approbation of Professors Physick, Chapman, James, Gibson, and Coxe; Doctors Hartshorne, Hewson, Monges, &c. &c. &c.*

The Subscribers to the above Institution, those Practitioners who have for the last twelve years obtained their supplies of vaccine virus from the undersigned, and the profession generally throughout the United States, are respectfully informed that applications for vaccine virus will be attended to as usual, at all seasons of the year, and at one day's notice, by the undersigned.

JOSEPH G. NANCREDE, M. D.

S. E. corner of Walnut and Tenth streets.

ELEMENTS OF TECHNOLOGY,

TAKEN CHIEFLY FROM A COURSE OF

Lectures Delivered at Cambridge, on the Application of the Sciences to the Useful Arts;

Now published for the use of Seminaries and Students,

BY JACOB BIGELOW, M. D.

Professor of Materia Medica, and late Rumford Professor in Harvard University, &c. &c. &c.

In 8vo. with numerous Plates.—Price four dollars.

BOSTON—PUBLISHED BY HILLIARD, GRAY & CO.

And sold by all Booksellers.

THE SUBSCRIBERS

HAVE JUST RECEIVED FROM ENGLAND AND FRANCE,

A LARGE SUPPLY

OF

NEW MEDICAL BOOKS,

AND

NEW EDITIONS OF VALUABLE STANDARD WORKS,

Among which are the following:—

Blake on Delirium.
Guthrie on the Arteries.
Searle on Cholera.
Alcock's Lectures on Surgery.
Cullen's Works, by Thomson.
Seymour on Ovaria.
Farraday's Chemical Manipulations.
Turner's Chemistry—new edition.
Ballingall's Military Surgery.
Marshall on Vaccination.
Tweedie on Fever.
Hennen's Medical Topography.
Kœcker on the Teeth.
Pinney's Code of Health.
England on the Kidneys.
Abernethy's Lectures on Surgery.
Granger's Anatomy.
Craigie's Anatomy.
Blumenbach's Anatomy.
Christison on Poisons.
Marley on Children.
Long on Healing.
Brown's Medical Essays.
Gibson on the Eye.
Carus's Comparative Anatomy.
Lawrence on Ruptures.
Dendy on Cutaneous Diseases.
Bateman on Cutaneous Diseases.
Hood's Physiology.
Stafford on Ulcers.
Stephens on Hernia.
Rhind on Worms.
Travers on Venereal.
Elliottson's Blumenbach's Physiology.
Swan on the Nerves.
Wilson on West India Fevers.
Munro on the Brain.
Guthrie on the Eye.
Guthrie on Gun-shot Wounds.
Young's Introduction to Medical Literature.
John Bell's Surgery—new edition, by Charles Bell, 4 vols. 8vo.
Plumbe on the Skin.
Abercrombie on the Brain.
Abercrombie on the Stomach.
Williams on the Lungs.
Andral's Pathology.
M'Intosh's Practice.
Parry's Posthumous Works.
Paris and Fonblanque's Medical Jurisprudence.
Fox on the Teeth.
Parry's Pathology.
Teale on Neuralgia.
Munro's Anatomy of the Stomach and Bowels.

Martinet's Manuel de Therapeutique.
Ajasson & Fouché's Manuel de Physique & de Meteoralogie.
Ajasson & Fouché's Manuel de Chimie Generale.
Gama's Traité des Plaies de Tete.
Meckel's Anatomie Compareé, 6 vols.
Meckel's Anatomie Generale.
Lobstein's Anatomie Pathologique, *folio, fine plates.*
Breschet's Systeme Veineux, *folio, fine plates.*
Cruveilhier's Anatomie Pathologiques, *folio, fine plates.*
Broussais's Examen.
Broussais's Phlegmasies.
Chopart's Maladies des Voies Urinaires.
Maury's Traité Complet de l'Art du Dentiste.
Fourcault's Lois de l'Organisme Vivant.
Andral's Clinique Medicale.
Bancal's Manuel Pratique de la Lithotritie.
Les Medecins Français Contemporains.

Gendrin sur les Inflammations.
Boisseau's Nosographie Organique.
Catechisme de la Medecine Physiologique.
Broussais sur la Folie.
Boyer's Traité des Maladies Chirurgicales.
Kurt Sprengel's Histoire de la Medecine.
Scarpa's Traité des Hernies.
Serres's Anatomie du Cerveau.
Weller sur les Maladies des Yeux.
Cabanis's Revolutions de Medecine.
Richond de la non Existence du Virus Venerien.
Lugol sur l'Emploi de l'Iode.
Adelon's Physiologie.
Bordeu's Œuvres Completes.
Hildenbrand's Medecine Pratique.
Martinet sur l'Inflammation de l'Arachnoide.
Roche & Sanson's Pathologie.
Billard de la Membrane Muqueuse.
Louis's Recherches sur la Gastro-Enterité.
Delpech de l'Orthormorphie par raport à l'Espece Humain.
Lobstein de Nervi Sympathetici Humain.
Scarpa's Traité Pratique des Hernies, *folio.*
Coster's Manuel des Operations Chirurgicales.
Foy's Manuel de Pharmacie.
Tavernier's Manuel de Therapeutique.
Blaud's Traité de Physiologie Philosophique.
Joubert's Traité des Maladies du Canal Intestinaux.

DICTIONNAIRE DES SCIENCES MEDICALES, in 60 vols. 8vo.

*** *A few copies of this valuable work still remain on hand, which will be supplied at ninety dollars a set.*

Subscriptions received to—

Annals of Philosophy.
Brande's Journal of Science.
Brewster's Journal of Science.
Johnson's Medico-Chirurgical Review.
Edinburgh Medical and Surgical Journal.
London Medical and Physical Journal.
Edinburgh Philosophical Journal.
Lancet.
London Medical Gazette.
Silliman's Journal of Science.
Journal of the Franklin Institute of the State of Pennsylvania, for the Promotion of the Mechanic Arts.

They will receive twice in each month all the New Works that appear in London and Paris. Orders for both these cities will be made up twice in each month, and gentlemen desirous to have books imported may rely upon having them sent promptly.

*** All new works noticed in the American Medical Journal, may be had on application to

E. L. CAREY & A. HART,
Corner of Fourth and Chesnut streets, Philadelphia.

FOREIGN AND CLASSICAL BOOK-STORE,

CHARLES DE BEHR, *Director,*

No. 108, BROADWAY, NEW YORK.

F. HUTTNER, *Agent,*

No. 32, SOUTH SIXTH STREET, PHILADELPHIA.

A branch of this house having been established at Paris, and arrangements made with the first houses in Hamburgh, Leipzig, Frankfort, and Brussels, Books can be imported with the least possible delay, and at the lowest prices.

JUST RECEIVED AND FOR SALE—

Encyclopädisches Wörterbuch der Medicinischen Wissenschaften. Herausgegeben von den Professoren der Medicinischen Facultät zu Berlin, 8vo. Tome III and IV.

Anfangsgründe der Naturwissenschaft. Von Dr. E. A. D. Barthels, 8vo. 2 vols.

Beiträge zur Witterungskunde. Von H. W. Brandes, mit Kupfertafeln und Witterungstabellen, 8vo.

Sam. El. a Bridel-Brideri Bryologia universa seu systematica ad novam Methodum Dispositio, Historia and Descriptio Omnium Muscorum Frondosorum, Huc usque cognitorum cum Synonymia ex Auctoribus Probatissimis, 2 vols. 8vo.

Lehrbuch der Gynäkologie oder systematische Darstellung der Lehren von Erkenntniss und Behandlung Eigenthümlicher gesunder und krankhafter Zustände, sowohl der nicht schwangern, schwangern und Gebärenden Frauen, als der Wöchnerinnen und Neugebornen Kinder. Von C. G. Carus, 2 vols. 8vo.

Bibliothek für die Vergleichende Anatomie. Von Dr. L. F. Froriep.

Journal für technische und ökonomische Chemie. Von Otto Hinné Erdmann.

Curgeschenk oder Taschenbuch für Gesundbrunnen und Bäder.

Dr. H. Fenner von Fenneberg Schwalbach, Selters, Schlangenbad, &c. &c. und ihre Heilquellen.

Symbiotikon für offentliche und Privataerzte. Von Dr. J. F. Niemann.

Der Leichnam des Menschen in seinen Physischen Verwandlungen. Von E. W. Güntz.

Fragmenta de Viribus Medicamentorum Positivis sive in sano Corpore Humano observatis a S. Hahnemann, M. D.

T. V. Edler von Hildenbrand über den Ansteckenden Typhus nebst einigen Winken zur Beschränkung oder Gänzlichen Tilgung der Kriegspest und mehrerer anderer Menschenseuchen, 2te Auflage.

W. Hisinger's Versuch einer Mineralogischen Geographie von Schweden, übersetzt, von F. Wöhler.

Recepte und Kurarten der besten Aerzte aller Zeiten von einem Praktischen Arzte.

Grundriss der Physiologie. Von Dr. K. A. Rudolphi.

Entozoorum sive Vermium Intestinalium Historia Naturalis. Auctore C. A. Rudolphi.

Hatpikh seu Novum Medicinae Rationalis Systema. Auctore F. Swediaur, M. D.

Handbuch der pathologischen Anatomie. Von Dr. F. G. Voigtel, mit Zusätzen von P. F. Meckel.

Ueber den Werth des homöopathischen Heilverfahrens. Von Dr. G. L. Rau.

Handbuch der pathologischen Anatomie. Von J. F. Meckel.

Grundriss der Krystallographie. Von Dr. C. F. Naumann.

Handbuch der Staats-Arzneiwissenschaft und Staatsarztlichen Veterinärkunde. Von Dr. J. F. Niemann.

Handbuch der Entbindungskunst. Von J. B. Osiander.

Handbuch der Speciellen Medicinischen, Pathologie, und Therapie. Von Raimann.

Abriss der Lehre von Menschen für höhere Schulklassen, von Christian G. W. Lehmann.

System der practischen Heilkunde. Von Dr. C. W. Hufeland.

J. Kampf's für Aezte und Kranke bestimmte Abhandlung von einer neuen Methode, die Hartnäckigsten Krankheiten, die ihren Sitz im Unterleibe haben, ders die Hypochondrie, sicher und Gründlich zu Heilen.

Allgemeine Aetiologie der Krankheiten des menschlichen Geschlechts. Von C. L. Kruse.

Nosologie und Therapie der chirurgischen Krankheiten in Verbindung mit der Bescheibung der chirurgischen Operationen, von C. J. M. Langenbeck.